11 2119

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. -
Borrow Area Snyder Associated, Inc.

Date 7/28/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825 B Sheepsfoot Compactor
Soil Description Gray clay - USCS Classification - CL
Weather Partly cloudy, hot and humid High - 96°F
Volume and Location of Material Placed During Shift 825 cubic yards placed on the southwestern portion of the protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?		
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?		(1)

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES: (1) ERM-Environdean, Inc currently does not have a smooth drum roller on site to perform this procedure

Field Moisture-Density Test Results

Date 7/28/93

Project Name PPG-HANNA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East	Depth/Elevation					
CBL-1	9125	4875	6"	103.1	92.5	14.2	-2.8	CL
CBL-2	9055	4875	6"	104.5	93.8	14.6	-2.4	CL
CBL-3	9035	4878	6"	102.6	92.0	14.3	-2.7	CL
CBL-4	9095	4879	6"	103.7	93.0	14.8	-2.2	CL

PT/11-92/WP/313108:Form5(Figure 5 Moisture-Density, Field Form)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 7-28-93

Report No.: 9 PAGE 1 OF 1

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 590 DS 3150

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 1	CBL 2	CBL 3	CBL 4
Location	N 9125 E 48750	N 9055 E 48750	N 9055 E 48780	N 9095 E 48790
Density Count (DC)	3060	2917	3101	2969
Moisture Count (MC)	161	167	161	168
Wet Density (WD)	117.8	119.8	117.2	119.0
Dry Density (DD)	103.1	104.5	102.6	103.7
Moisture (M)	14.6	15.2	14.6	15.3
Percent Moisture (%M)	14.2	14.6	14.3	14.8
Percent Compaction (DD/Y)	92.5	93.8	92.0	93.0
Pass/Fail (P or F)	P	P	P	P

Notes: 1ST LIFT 6" 1ST LIFT 6" 1ST LIFT 6" 6"

Client Name & Address: ERM.

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: PAUL NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 7-28-93 (Date)

AR300447

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 7-28-93

Report No.: 9 PAGE 1 OF 1

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 590 DS 3150

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CCL 1	CCL 2	CCL 3	CCL 4
Location	N 9125 E 48750	N 9055 E 48750	N 9055 E 48780	N 9095 E 48790
Density Count (DC)	3060	2917	3101	2969
Moisture Count (MC)	161	167	161	168
Wet Density (WD)	117.8	119.8	117.2	119.0
Dry Density (DD)	103.1	104.5	102.6	103.7
Moisture (M)	14.6	15.2	14.6	15.3
Percent Moisture (%M)	14.2	14.6	14.3	14.8
Percent Compaction (DD/Y)	92.5	93.8	92.0	93.0
Pass/Fail (P or F)	P	P	P	P
	1ST LIFT	1ST LIFT	1ST LIFT	

Notes: _____

Client Name & Address: ERM.

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: PAUL NEFF — Name — 058155 — Cert. #

Signature — 7-28-93 — Date

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 07 29 93 | NO. 1 0 2 | SHEET 1 OF 5

OJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; for the second time this week a thunderstorm with intense rainfall (0.9") passed over the site therefore initial inspection consists of a walk along the eastern and southwestern silt fence alignments to evaluate efficiency in maintaining silt within designated work areas - observe three primary locations where silt fence was breached along the eastern perimeter including two locations in the vicinity of the natural spring and one corner location downgradient of the steep slope, each location incurred some minor siltation downgradient 20-30' of silt fence with no evidence of damage to the spring; majority of silt consists of sand and fines washed from fill material used during initial grading of the site within the limits of the protective cover system; propose placing a double alignment of silt fence in spring vicinity to counter stormwater runoff flows - discuss with ERM-Envirodesign, Inc Site Manager Tony Kessler installation of silt fence at top of slope to slow runoff as well as along the perimeter of designated work area; also inspected silt fence installed along southern property corner - this area have been overbuilt with clay which has buried silt fence and security fence therefore will require removal of existing silt and security fence, removal of additional clay by cutting slope to tie into existing ground surface along edge of Thomas Pajcic farm road and reinstallation of silt fence to provide a roadway of sufficient width to allow farm equipment to easily pass; also inspect clay placed yesterday which is too wet to continue placement and compaction operations; discuss silt fence situation and condition of clay with Site Manager, Tony Kessler and instruct to discontinue clay barrier layer construction due to wet surface conditions (clay is excessively wet, sticky, etc.)

VISITORS ON SITE: Site conditions - wet
Anne Estabrook - CH2M-Hill, US EPA oversight contractor
Tom Ebbert - PPG Industries, Inc

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None

WEATHER CONDITIONS:
Partly cloudy and pleasant; windy
High/Low Temp - 81/67°F
Precipitation - 0.9"

IMPORTANT TELEPHONE CALLS:
None

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery AR300449 DATE: 7/29/93

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 07 29 93 | NO. 1 0 3 | SHEET 2 OF -

PROJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION OVSGT

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

but may continue stockpiling clay on hilltop adjacent to ash burn pit just south of the high point Flow has also instruct to repair erosion silt fence at all problem areas discussed previously and that this is the main priority and must be completed as soon as possible remainder of day conduct periodic inspection of ERM-Enviroclean Inc personnel the following work activities:

1) Continued implementation of traffic control measure with placement of "Flagman Ahead" and "Trucks Crossing" warning signs at approximately 1000-1500 Ft on either side of Hranica Drive to caution drivers on Ekastown Road; Flagman stationed near end of Hranica Drive to record visitors, sign truck tickets, monitor Hranica Drive dust conditions, direct traffic if necessary, and communicate with project staff concerning aforementioned duties; note that dust control on Hranica Drive as main site access road due to heavy rain overnight

2) Continued daily dust monitoring of work areas and downwind locations every 2 hours using real-time particulate dust monitor - for monitoring data see the log corresponding to be filed in the field office trailer

3) Stockpiling clay from Snyder Associated Companies Inc in Kittanning, PA on top of hill adjacent to ash burn pit - cap - tandem dump trucks unloading riprap loads and John Deere 555G truckloader to push piles into 2-3 larger stockpiles

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 5	See sheet 1 of 5
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 5	See sheet 1 of 5

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE: 7/29/93

ITA * 86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	07	29	93
	NO.	1	0	4
	SHEET	3	OF	-

OJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION PAGE

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

in lieu of planned and scraper [illegible] which are [illegible] and appears to be drying out in place. Clay portion of probable remaining clay continues to come in dryer than optimum moisture content and smaller amounts of clods which could [illegible] additional compaction passes.

4) Removing existing silt and fencing fence along southwestern limits of protective cover system while concurrently cutting excess clay material around perimeter to construct slope from limits of initial grading to existing edge of Pigeon farm road using the John Deere 750B dozer and 555G track loader; silt fence installation include excavation of shallow 6" trench, placement of silt fence and securing by driving each stake a minimum of 12" and backfilling with surrounding fill up to blue dashed line; also reinstalled silt fence along segments of eastern alignment which encountered problems by reinstalling as previously described - also installed silt fence along top of slope upgradient of spring; inspected silt fence installation to confirm compliance with project requirements - note that workers were instructed on proper procedures to follow during silt fence installation

5) Attended 7th Weekly Progress Meeting conducted by ERM-Environmental Project Manager, Dave Gurik which consisted of sitewalk and internal meeting held in field office trailer - meeting attended by PRP Representatives Tom Eberet, US EPA Oversight Contractor, Anne Estabrook of CH2M-Hill and myself; for detail see the attached minute - primary topics of discussion include status of fill material used during initial grading, dust

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 5	See sheet 1 of 5
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 5	See sheet 1 of 5

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A Montgomery DATE: 7/29/93

AR300451

32-A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE | 7 | 22 | 92 | NO. | 1 | 2 | 5 | SHEET 2 OF 5

PROJECT NAME PPG BRAN CH | PROJECT NO. 51[illegible]

FIELD ACTIVITY SUBJECT: [illegible]

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

[illegible] smooth drum roller [illegible]

[illegible] on contaminated soil [illegible] by blending in dry stockpiled gray clay into moist wet clay on surface using the John Deere 750B dozer to spread stockpile of clay and mix by "tracking in"; approximately one 8" thick horizontal lift placed and compacted; additional water sprayed to aid in proper workability and provide a quality product - will test lifts [illegible] for moisture to verify compaction [illegible] plan was to continue to process clay tomorrow but due to wet site conditions and limited work area; scheduled fill for tomorrow and Monday to complete initial grading; no Saturday work scheduled; received 85-15 cy load for a total of 1275 cy - project total to date is 2100 cubic yards

Ann Esterbrook of CH2M-Hill on site most of day and expressed concern over silt fence locations which were toppled and are currently being addressed; after consulting with Elizabeth Mikulis, Ann stated that she had put in a call to Garth Connor, US EPA Remedial Project Manager explaining that site incurred heavy rainfall which produced runoff that caused damage to silt fence at several locations and that there was a good possibility that lead contaminated silt may have been transported off-site. I explained that actual site boundary is the fenceline and silt primarily composed of clean sand and fill from fill material from Snyder Associated Companies, Inc. I also pointed out that even if some contaminated silt had breached the silt fence

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 5	See sheet 1 of 5
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 5	See sheet 1 of 5

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 7/22/92

ITA 186

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	07	22	93
NO.	1	0	6
SHEET	5	OF	5

OJECT NAME PPG-HRANICA | PROJECT NO. 5151-3

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

[illegible] would not be contaminated prior to land but [illegible] [illegible] [illegible] known to have elevated levels of lead [illegible] [illegible] if western surface water collection ditch had been in place [illegible] runoff would have been controlled thereby preventing [illegible] damage to the silt fence in the vicinity of the spring. I explained that ditch was originally scheduled for construction two weeks but had been postponed to provide access for initial trench and stump/log grinding operations. Ann assured me that western surface water collection ditch will be in place before placement and compaction of the clay barrier layer; Ann will be on site tomorrow to conduct oversight function; Ann commented that in general the site looks good

A total of 7 ERM-Environclean, Inc personnel on site including:

Work Shift 0630-1730

1 Project Manager
1 Site Manager
1 Foreman/Operator
2 Operators
1 Technician
1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 5	See sheet 1 of 5
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of	See sheet 1 of 5

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 7/22/93

Received August 2, 1993

MEMORANDUM
ERM-ENVIROCLEAN, INC.

To: Tom Ebbert, PPG

From: Dave Guzik DAG

Date: 29 July 1993

Regarding: Hranica Weekly Project Status Report and Meeting Minutes

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Meeting: Meeting No. 7
29 July 1993, 9:00AM

Attendees: Tom Ebbert (PPG)
Dave Guzik (ERM)
Tony Kessler (ERM)
Bill Montgomery (IT)
Anne Estabrook (CH_2M Hill)

Review and approval of the minutes of the previous meeting.

- No changes were noted regarding the minutes of the previous meeting.

Review of action items from previous meeting.

- Regrading of slopes along the upper end of the access road has been completed, however regrading of portions of this area will be required due to storm damage.
- The grinding of all remaining stumps was performed on 27 and 28 July.
- For additional security, the task of signing in visitors has been assigned to the flagperson located at the intersection of Hranica Drive and Ekastown Road.

Field observations, problems, conflicts.

- ERM will continue relations with the public and neighbors (e.g. dust control, prevention of speeding, and access issues). Tom Ebbert authorized ERM to apply calcium once per week to reduce dust along Hranica Drive. The upper portion of the access road will also be watered daily.
- The volume of general fill required at the site was reviewed. Revised estimates now indicate that as much as 12,000 cubic yards (compacted volume) of fill may be required to meet the specified site grades. PPG has authorized ERM and Snyder Associated Companies to supply and place the

additional required fill. Tom Ebbert reviewed ERM's fill calculations to date and will monitor this situation with Tony Kessler of ERM.

- A severe thunderstorm on 28 July caused significant damage to the drainage controls (e.g. silt fence). ERM will be repairing the damaged silt fence over the next 2 days.

- Excess fill placed along the southwest corner of the site will be regraded and sloped to tie in the grades of the protective cover to the existing site grade on the adjacent Pajer property.

- The west surface water collection ditch has not yet been installed. Initial excavation for the rip rap outlet uncovered buried metal and other debris which will require offsite disposal. It is ERM's understanding that the surface water collection ditch must be installed prior to the placement of clay on the lower portion of the site. Installation of this ditch is scheduled for the next several days.

- It was agreed that a smooth drum roller will be used to crown and seal clay lifts at the end of each day.

Problems which may impede construction schedule and proposed corrective action.

- Approximately 3 days have been lost in the schedule due to rainfall incurred in the past week. At this time, it is not felt that this will adversely effect the overall completion of the project within the agency's unofficial timeframe.

Review of schedule and status of work.

- Work on Saturdays will continue at the discretion of ERM.

Work or testing accomplished since last meeting.

- Chipping of all remaining trees and stumps has been completed.

- Site grading and the importation and placement of fill material is continuing.

- Compaction tests and the collection of QA/QC field verification samples have been performed as required.

- ERM has commenced the stockpiling of clay onsite.

Rework items identified/completed since last meeting.

- Excess fill placed along the southwest corner of the site will be regraded and sloped to tie in the grades of the protective cover to the existing site grade on the adjacent Pajer property.

Corrective measures and procedures to regain progress in accordance with project schedule.

- A 6-day per week work schedule will be maintained at the discretion of ERM.

Review of construction schedule including testing requirements and coordination requirements for the next two weeks.

- Grading and filling activities are expected to continue until approximately 2 August 1993, with the commencement of clay placement activities thereafter.
- The site grading survey will be completed.
- The performance of compaction tests and the collection of QA/QC samples will continue.
- The repair of damaged silt fence will be performed in the next two days.

Revisions of schedule, if required.

- None at this time.

Review of submittal schedules; expedite as required.

- Not applicable.

Maintenance of quality and safety standards.

- For additional security, the task of signing in visitors has been assigned to the flagperson located at the intersection of Hranica Drive and Ekastown Road.
- Bill Montgomery noted that he will be filing a nonconformance report for the spacing of fence posts , however he understands and agrees with the schedule for addressing this item (see last weeks minutes).

Pending changes or substitutions.

- Not applicable.

Other business.

- Tom Ebbert confirmed that PPG will arrange for the proper disposal of drums identified at the site. ERM agreed to collect samples for submittal to PPG's laboratory for waste classification analysis.

- ERM has scheduled a site visit on 2 August with Penn Drilling to review the closure of the 4 abandoned monitoring wells located on the Pajer property. Additional information concerning these wells is required (e.g. specific depths and construction info). Tom Ebbert agreed to check PPG's files for any additional information concerning these wells.

- ERM has been notified that Bob Kimball of PADER will be onsite on 5 August to review the status of the Hranica Drive bridge crossings.

cc: Gary Crouth (ALCOA)
Garth Connor (USEPA)
Robert Kimball (PADER)
William Montgomery (IT)
Elizabeth Mikulis (CH_2M Hill)
Stan Porfido
Mike Coia
Tony Kessler

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG - HRANICA
Project No. 515428
Unit No. -
Borrow Area Snyder Associated Companies, Inc

Date 7/29/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor / Kobe Dozer
Soil Description USCS Classification - CL
Weather Partly cloudy and pleasant High - 81°F
Volume and Location of Material Placed During Shift 1275 cubic yards stockpiled on hilltop adjacent to ash burn pile cap south of high power line

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?		(1)
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?		(2)

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES: (1) Due to heavy rainfall previous night the surface of clay placed on the southwestern portion of protective cover system was excessively wet during morning but regained as winds dried clay
(2) ERM-Environclean, Inc does not have a smooth drum roller on site but is making arrangements to procure one by mid next

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG	DATE	07	30	93
	NO.	1	0	7
	SHEET	1	OF	2

OJECT NAME PPG - HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

and/or subcontractors performing the following work activities:

1) Continued initial grading operations with placement and compaction of ± fill material from Snyder Associated Companies Inc. in K Hanging, PA on the toe of the 3H:1V slope (western half) and northward within the limits of the protective cover system; tandem dump truck dumping ± 15 cubic yard loads at top of slope and at various locations on the protective cover system at which point the John Deere 750B dozer spreads and compacts approximate 8" loose horizontal lift by repeatedly "tracking in" fill material; instruct operator to spread fill placed at toe of slope in thinner lifts not exceeding 8" in thickness; inspect placement and compaction operations to verify material consistency (observed little or no change in material since first day), proper lift thicknesses, absence of clods, coverage of specified areas as shown on the design drawings, and performance of compaction method - see the attached initial grading construction inspection form for additional information; Paul Neff, Troxler nuclear gage technician on site from Pederson & Pederson on Valencia PA to conduct in-place moisture/density testing to check compaction progress at fill areas today a total of 3 test were conducted with each test surpassing 90% of the Standard Proctor Maximum Dry Density value of 122.3 pcf - for complete data see the attached field moisture/density test results sheet; note that instrument calibration was verified and each test was supervised to determine location and observe test procedure; a total of 63.15 cy loads received for a grand total

VISITORS ON SITE:
Ann Estabrook - [illegible]

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None

WEATHER CONDITIONS: Site Conditions - wet
Cloudy and pleasant, light drizzle
High/Low Temp - 66/63°F
Precipitation - 0.4"

IMPORTANT TELEPHONE CALLS:
Tom Eckbert - Project status update and discuss change order for Response to Agency comments on Verification Study

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 7/30/93

AR300459

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	07	30	93
	NO.	1	0	8
	SHEET	2	OF	2

PROJECT NAME	PPG-HRANICA	PROJECT NO.	515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

of 1020 cubic yards; cumulative total of fill material received on [illegible] to date is 10,995 cubic yards. [illegible] unloaded fill by hand and pulled out samples for geotechnical testing will be [illegible]

2) Began transferring wood chips temporarily staged on the [illegible] portion of the protective cover system to the area [illegible] west of the main gate access road using the John Deere [illegible] truckloader; note that wood chips placed on clean 6-mil plastic sheeting - two large stockpiles will be left in place until [illegible] cover material placement

3) Continued construction of western surface water [illegible] ditch excavation of outlet apron, placement of geotextile [illegible] overlap, and placement of 6-9" of riprapping John Deere 555G truckloader; continued excavation of 2' triangular ditch using the Case 580 Super K backhoe - completed approximately 20-30 feet

4) Continued traffic control and dust monitoring programs

Ann Eckenbrook on site until approximately 1200

A total of 6 ERM-Environmental Inc. personnel on site including:

Work Shift 0630-1430
- 1 Site Manager
- 1 Foreman/Operator
- 2 Operators
- 1 Technician
- 1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 2	See sheet 1 of 2
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 2	See sheet 1 of 2

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE: William A. Montgomery DATE: 7/30/93

4R300460

ITA - 86

Construction Inspection
Initial Grading

Field Form

Project Name PPG-HANNA
Project No. 515179
Unit No. –
Borrow Area [illegible]

Date 7/30/93
Inspected by William A. Martin
Max. Dry Density (pcf) 122.3
Opt. Moisture (%) 8.3

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor/John Deere 750B Dozer
Soil Description Brown sand and gravel - USCS classification - GP
Weather Cloudy and mild High -
Volume and Location of Material Placed During Shift 1020 cubic yards placed at toe of 3H:1V slope and northward within limits of protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 7/30/93

Project Name PP. MALVA

Project No. 5[illegible]3

Borrow Area [illegible]

Maximum Dry Density (pcf) [illegible]

Optimum Moisture (%) 8[illegible]

Test No.	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East	Depth Elevation					
FML-71	9520	48960	6"	116.0	94.9	9.0	+0.7	GW
FML-72	9660	49020	6"	115.2	94.2	9.0	+0.7	GW
FML-73	9750	49000	6"	115.0	94.1	9.2	+0.9	GW
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
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—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

PT/11-92/WP/313108:Form5(Figure 5 Moisture-Density, Field Form)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 7-30-93

Report No.: 10 PAGE 1

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 576 DS 3170

Proctor Values: ____ modified X standard Opt. Moisture 8.3 density (Y) 122.3

% Moisture Deviation Permitted _____

Test #	FML 71	FML 72	FML 73	
Location	N 9520 E 48960	N 9660 E 49020	N 9750 E 49000	
Density Count (DC)	2526	2582	2578	
Moisture Count (MC)	118	117	119	
Wet Density (WD)	126.5	125.6	125.6	
Dry Density (DD)	116.0	115.2	115.0	
Moisture (M)	10.5	10.4	10.6	
Percent Moisture (%M)	9.0	9.0	9.2	
Percent Compaction (DD/Y)	94.9	94.2	94.1	
Pass/Fail (P or F)	P	P	P	
	6" DEPTH	6" DEPTH		

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: ERM

Compaction Test Performed by: Paul Neff (Name) 058155 (Cert. #)

Paul J Neff (Signature) 7-30-93 (Date)

AR300463

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG | DATE 08 AU 93 | NO. 1 0 9 | SHEET 1 OF 3

FIELD ACTIVITY DAILY LOG

PROJECT NAME PPG-HENRICO | PROJECT NO. 5151.1

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION CMS

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect field operations - ERM - Envirolean, Inc. personnel performing the following work activities:

1) Continued implementation of traffic control program with placement of warning/caution signs along Ekastown Road prior to Henrico Drive and stationing of flagman at the intersection to direct traffic, as needed, sign in visitors, receive trucks hauling material, sign and retain copies of material bills of lading, update project staff with various information (i.e. status of trucks, Henrico Drive road conditions, requests/concerns of residents, etc.) by communicating via mobile radio; signs consist of an orange/black "Flagman Ahead" and yellow/black "Trucks Crossing" signs and are placed at appropriate intervals to provide sufficient warning to motorists; several scattered thundershowers producing approximately a half inch of rain have eliminated any dust generation along Henrico Drive and the main site access road for today

2) Continued construction of the western surface water collection ditch using the Case 580 Super K backhoe with excavation of approximately 20 feet of the shallow (2'to2'-3" depth) ditch from the beginning of the riprap outlet; an approximate 2' deep trench is excavated along the centerline and the sides are tapered to existing grade at a slope of 2H:1V; once initial segment is complete may utilize John Deere 750B dozer to complete maintaining established dimensions

3) Continued and completed transferring wood chips staged on northern protective

VISITORS ON SITE:
Garth Connor - U.S. Environmental Protection Agency Remedial Project Manager

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None

WEATHER CONDITIONS: Temperatures - Wet
Partly cloudy warm and humid/scattered thundershowers
High/Low Temp. - 85/68 °F
Precipitation - 0.5"

IMPORTANT TELEPHONE CALLS:
None

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 8/27/93

AR300464

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 12 93 | NO. 1 1 0 | SHEET 2 OF 3

OJECT NAME PPG HANNA | PROJECT NO. 51512

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION SAG

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

cover system to 6-mil plastic lined stockpiles located just west of the main site access road adjacent monitoring well cluster set no. 1 using the John Deere 555G trackloader; approximately 300 cubic yards of woods chips resulting from clearing, grubbing and chipping operations

4) Continued initial grading operations with placement and compaction of 2A fill material from Snyder Associated Companies, Inc. in Valencia, PA along 3H:1V slope (ie monitoring well cluster no. 3 - 4 west) and north end within the limits of the protective cover system; tandem dump trucks "spot" dumping 3-5 cubic yard loads at top and toe of slope and John Deere 450B dozer spreads piles in approximate 8" thick loose horizontal lifts over the slope and slowly "tracks" material in to achieve compaction effort; on slopes less than 3H:1V and flat areas the Caterpillar 825B sheepsfoot compactor is used to both spread and compact the material with compaction method consisting of a minimum of 4 passes (ie 2 passes in each of two perpendicular directions) inspected placement and compaction operations in final phases of initial grading to verify coverage of all specified areas as indicated on the design drawings, lifts placed within proper tolerances, consistency of material (note that during course of initial grading there has been little or no observable change in the quality of the fill material other than slight variations in color), absence of clods and performance of specified compaction methods - for additional information see the attached initial grading construction inspection form; Paul Neff of Pedersen & Pedersen in Valencia, PA on site with Troxler nuclear gage to perform in-place moisture/density testing; inspect calibration procedure

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE:

3074-7-88

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	02	93
	NO.	1	1	1
	SHEET	3	OF	3

FIELD ACTIVITY DAILY LOG

PROJECT NAME: PPG-HRANICA | PROJECT NO.: 515128

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

and direct technician to conduct several in place moisture density tests at locations where compaction has been completed - note that the Standard Proctor Maximum Dry Density value was modified with the most recent Standard Proctor for Sample No FM-2B (121.0 pcf) by averaging this value and the previous Standard Proctor MDD (123.5 pcf) to produce a value of 1223 pcf three test locations easily surpassed the compaction requirement of 90% of the Standard Proctor Maximum Dry Density - see the attached Field Moisture/Density Test Results Sheet for details due to the wet weather only a few areas were checked; note that some portions of the 3H:1V slope were just below compaction (85-90pcf) and require additional compaction effort as was instructed to operator Wayne Finchum; received 86-15 cy loads for a grand total of 1290 cy - project total to date is 12270 cy; assisted Site Manager, Tony Kessler in collection of samples FM-8A/8B, FM-9 and CL-1 for shipment to Triad for specified geotechnical testing; see attached doc. for U.S. Environmental Protection Agency Remedial Project Manager Garth Connor arrived on site this afternoon (1345) to monitor project performance review all project status while conducting site walk - Garth will also be on site tomorrow morning to meet with Tom Ebbert, PRP Representative, Mark Weisberg of IT Corporation and myself to discuss the groundwater verification study and related issues; Garth left at 1500 to visit Sylvester Pelka; Garth commented that the appears to be making good progress

A total of 5 ERM-Envirotech, Inc. personnel on site today including:

Work Shift 0600-1730: 1 Site Manager, 1 Operator, 1 Laborer, 1 Foreman/Operator, 1 Technician

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE: William A. Montgomery DATE: 8/2/93

327A-7-86

Sample Chain of Custody

W.O.No.: 992-97 | Project Name: Hranica Landfill

Sampler: T. Kessler

ERM T.R. Number	Date	Time	COMP	GRAB	Sample Location	Number of Containers	ASTM D 2216 moist. cont.	ASTM D 4318 Atterberg lim.	ASTM D 422 Sieve Size	Unified Class 2487	St. Paul	Remarks
010597	2 Aug 93	9:40am		X	Contour of cap sta 97+50	(1) bag	X	X	X	X		FM-9
010619	2 Aug 93	9:30am		X	Steep slope near culvert	"	X	X	X	X		FM-8A
010598	"	9:35am		X	" " " "	"					X	FM-8B
010596	"	9:20am		X	Cap near apple orchard	"	X	X	X	X		CL-1

Sample Relinquished	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
10597 (FM-9)			TEI	8-2-93	AM	LAB TESTING
10619 (FM-8A)			TEI	8-2-93	AM	LAB TESTING
10598 (FM-8B)			TEI	8-2-93	AM	LAB TESTING
10596 (CL-1)			TEI	8-2-93	AM	LAB TESTING

AR300467

COPIES White & Yellow copies accompany sample shipment to laboratory Yellow copy retained by laboratory White copy to be returned to ERM for files Pink copy retained by sampler Gold copy extra copy as needed (warehouse)

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

FM-8A
010619

1 Project W.O. 742-97

Project Name/Location
Hamlin Landfill
Sarver, PA

2 Sample Concentration
☐ Low Concentration
☐ Medium Concentration

3 Ship to: TRIAD Eng. Co.
918 St. Clair Way
P.O. Box 1829
Greensburg, PA 15601
Attn: John Kent

4 Sample Matrix
☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact
Sampler: T. Kessler
Project Manager: D. Gruzik
Phone No. 772-1022

6 Shipping Information
(Name of Carrier) — Private
(Date Shipped) 2 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5gl.
Atterberg Limits " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

8 Sample Location
Steep slope near
gatehouse road

Date: 2 Aug 93
Time: 9:30 am

9 Sample Description
☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)
☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300468

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

FM-BU
010598

1 Project W.O. 992-97

Project Name/Location

Hamm Landfill
Sarver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

3 Ship to: TRIAD

918 St Clair Way
P.O. Box 1029
Greensburg, PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler:
Project Manager
Phone No.

6 Shipping Information

(Name of Carrier) — P. Foster
(Date Shipped) 2 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
STD Proctor ASTM-D-698	1	5 gl.

8 Sample Location

steep slope near access road

Date: 2 Aug 93
Time: 9:35 am

9 Sample Description

☐ Surface Water ☐ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300469

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

FM-9
010597

1 Project W.O. 992-87

Project Name/Location
Mannia Landfill
Sayre, PA

2 Sample Concentration
☐ Low Concentration
☐ Medium Concentration

3 Ship to: TRIAD ENG. C.
918 SE Chair Way
P.O. Box 1029
Greensburg, PA 15601
Attn: John Kent

4 Sample Matrix
☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact
Sampler: T. Kessler
Project Manager: D. Gurzik
Phone No. 772-1022

6 Shipping Information
(Name of Carrier) — C. Fisher
(Date Shipped) 2 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont ASTM D 2216	1	1 gl
Atterberg Limits " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

8 Sample Location
center of cap
sta 97+50

Date: 2 Aug 93
Time: 9:40 am

9 Sample Description
☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)
☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300470

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O.: 992-97	**2** Sample Concentration: ☐ Low Concentration ☐ Medium Concentration
CL-1 010596	
Project Name/Location: Homer Landfill, Server, PA	**3** Ship to: TRIAD Eng Co, 918 Stoneridge Way, P.O. Box 1829, Greensburg, PA 15601, Attn: John Kent
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact: Sampler: T. Kessler; Project Manager: D. Brezik; Phone No.: 772-1022

6 Shipping Information

(Name of Carrier): — C. Fisher
(Date Shipped):
(Airbill Number):

8 Sample Location: Cap area new (Apple Orchard)

Date: 2 Aug 93
Time: 4:20 pm

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	1/2
Atterberg Limits " " 4318		
Grain Size " " 422		
Soil Class " " 2487		

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-In Person's Signature: John Kent

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300471

Construction Inspection
Initial Grading

Field Form

Project Name PPG-UPANICA
Project No. 515428
Unit No. –
Borrow Area Snyder Associated Companies, Inc.

Date 8/2/93
Inspected by William A Montgomery
Max. Dry Density (pcf) 122.3
Opt. Moisture (%) 8.3

Compaction Equipment Caterpillar 825B Shoepsfoot Compactor / John Deere 750B Dozer
Soil Description Brown sandy gravel; USCS Classification –
Weather Partly cloudy and mild with scattered thunderstorms High- 85°F
Volume and Location of Material Placed During Shift 1290 cubic yards placed on 3H:1V slope and northward within the limits of the protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/2/93

Project Name PPG-URANICA

Project No. 515428

Borrow Area Snyder Associated Companies Inc

Maximum Dry Density (pcf) 122.3

Optimum Moisture (%) 8.3

Test No.	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East	~~Elevation~~ Depth					
FML-74	9710	48970	12"	115.5	94.4	8.3	0	GP
FML-75	9710	48970	6"	111.1	90.9	8.9	+0.6	GP
FML-76	9750	49010	6"	111.4	91.1	8.4	+0.1	GP
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

PT/11-92/WP/313108:Form5(Figure 5 Moisture-Density, Field Form)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-2-93

Report No.: 11 PAGE 1

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17757 Standard Counts: MS 581 DS 31860

123.5
121.0
119.5
121.33
NEW #

Proctor Values: ____ modified X standard Opt. Moisture 8.3 density (Y) 122.3

% Moisture Deviation Permitted _____

Test #	FML 74	FML 75	FML 76	
Location	N 9710 E 48970	N 9710 E 48970	N 9750 E 49010	
Density Count (DC)	570	2879	2897	
Moisture Count (MC)	111	114	109	
Wet Density (WD)	125.1	121.1	120.9	
Dry Density (DD)	115.5	111.1	111.4	
Moisture (M)	9.6	10.0	9.4	
Percent Moisture (%M)	8.3	8.9	8.4	
Percent Compaction (DD/Y)	94.4	90.9	91.1	
Pass/Fail (P or F)	P	P		
	12" DEPTH.	6" DEPTH		

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: PAUL NEFF (Name) 058155 (Cert. #)

Signature 8-2-93 (Date)

AR300474

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE | 8 | - | 11
NO. | 1 | 1 | 2
SHEET 1 OF 4

PROJECT NAME PPG HENRICO | PROJECT NO. 511

FIELD ACTIVITY SUBJECT: [illegible]

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect field operations - ERM - Envirocleen, Inc. personnel and/or subcontractors performing the following work activities:

1) Continued traffic control program with positioning of flagman at the end of Henrica Drive to direct traffic, as needed, as tandem dump truck enters and exits from Ekastown Road; flagman (Pete Foster) also receives and signs each load of material from Snyder Associated Companies, Inc, monitors status of Henrica Drive, reports local residents concerns and complaints, if any, and perform dust control periodically as conditions dictate; no dust control measures are required today since Henrica Drive, the main site access road and the site, in general are still moist from yesterday's rainfall; traffic signs were also placed as usual prior to Henrica Drive along the northern and southern lanes of Ekastown Road during the haul period

2) Initially continued construction of clay barrier layer with placement and compaction of clay on steep eastern slope; however, discontinued operations due to tandem dump trucks inability to effectively unload material on top of ash burn pile cap caused by wet slick ground surface; trucks also beginning to create ruts which is prohibited in this vicinity; a total of 20 - 15 cubic yard truckloads of clay were stockpiled on the hilltop adjacent the ash burn pile cap with the previously staged material and the John Deere 555G trackloader was used the remainder of the day to transfer this material to the top of the steep eastern slope in preparation of placement for tomorrow

VISITORS ON SITE:
Garth Connor - US EPA Remedial Project Manager
Tom Ebbert - PRP Representative/PPG Industries, Inc.
Mark Weisberg - IT Corporation

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None

WEATHER CONDITIONS: Site Conditions - Damp
Partly cloudy and warm
High/Low Temp. - 82/60°F
Precipitation - None

IMPORTANT TELEPHONE CALLS:
None

IT PERSONNEL ON SITE: William A. Mountcastle

SIGNATURE [signature] DATE: 8/11/

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 09 02 12 | NO. 1 1 - | SHEET 2 OF 4

PROJECT NAME [illegible] | PROJECT NO. [illegible]

FIELD ACTIVITY SUBJECT: [illegible]

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

3) Continued and completed initial grading operations with placement and compaction of fill material from Snyder Associated Companies Inc in Kittanning, PA at various location identified within the limits of the protective cover which require additional fill to meet the design requirements; tandem dump trucks "spot" dumping 15 cubic yard loads then John Deere 750 B dozer spreads fill in loose, horizontal lifts approximately 8" thick over the work area followed by a minimum of 4 passes consisting of 2 passes in each of two perpendicular directions with the Caterpillar 825B sheepsfoot compactor; work concentrated along 3Ht:1V slope and northward to bring areas up to initial grade as indicated by the 50'X50' field reference grid points; Paul Neff, Trackhoe nuclear gage technician on site to conduct in-place moisture/density testing, direct and supervise performance of 4 tests at different locations within the workarea with each test surpassing the Standard Proctor Maximum Dry Density value (121.3 pcf which is the average of 3 Std. Proctors for the fill material; inspected placement and compaction operations – see attached Initial Grading Construction Inspection Report for details; received 22-15 cy loads for a total of 330 cubic yard - Project Grand Total to Date is 12,600 cubic yards

4) Surveying subcontractor, Pedersen & Pedersen of Valencia, PA onsite with 2-man crew performing final update of initial grading to complete subgrade survey; surveyors placing grade stakes denoting required cuts/fills and corresponding coordinates at each of the grid nodes of the 50'X50' field grid

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 2/3/12

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	03	93
	NO.	1	1	11
	SHEET	3	OF	4

OJECT NAME PPG - HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION GA/GC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

5) As part of erosion and sedimentation control, used CAT 825B sheepsfoot compactor to loosen ground surface along toe of slope bisecting site to slow runoff in the event of a heavy rain; divots made in ground would promote siltation and serve as multiple "speed bumps" in slowing the runoff from the steep slope.

At 0900 met with Tom Ebbert, PRP Representative (PPG Industries, Inc.), Garth Connor, U.S. Environmental Protection Agency Remedial Project Manager and Mark Weisberg at IT Corporation to conduct site walk, discuss agency comments on the Draft Groundwater Verification Study, and overall strategy for Final Groundwater Verification Study; due to my full time commitment on the remedial action I've selected Mark Weisberg of the Monroeville office to serve as task manager in providing itemized responses to the comments as well as incorporating these changes to produce a Final Groundwater Verification Study Report for submittal to the USEPA and PADER by August 21, 1993; Mark is familiar with the project and is knowledgeable in this field or knows IT's resources to gain such insight; after discussion with group-primary strategy is to add an intermediate and shallow well east/southeast of Monitoring Well No MW-3S and retotalize the parched water table argument to address concerns; also may add off-site surface water sample locations (i.e., SW-7, SW-8, and SW-10) to long-term groundwater monitoring/sampling program; remainder of comments will be addressed as requested except for designated US EPA action items (e.g., Baseline risk assessment) plan to have responses completed, tables/figures created and or revised and text rewritten by August 16, 1993 for review by Tom Ebbert and myself

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE: 8/3/93

32-A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	03	93
	NO.	1	1	5
	SHEET	4	OF	4

FIELD ACTIVITY DAILY LOG

PROJECT NAME	PPG - HRANICA	PROJECT NO.	515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

- Note that ERM-Envirolean short one operator (Bill Varos) today and yesterday due to extreme sunburn to legs; received burns during weekend and most likely will be out remainder of the week

- The main site gate has become skewed due to incorrect installation of hinges; Tony Kessler, ERM-Envirolean, Inc. Site Manager attempted to contact Chris Galbreath of Mr Fence but learned he was on vacation until next week

A total of 6 ERM-Envirolean, Inc personnel on site today including:

1 Site Manager
1 Foreman/Operator
1 Operator
1 Technician
1 Laborer
1 Operator (Part time)

Work shift - 0600-1730

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 8/3/93

AR300478

IA - 86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG URANIA
Project No. 51542B
Unit No. -
Borrow Area Studio Associated Companies, Inc.

Date 3/3/93
Inspected by William A. Mc Lyn - u
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment John Deere 750B Dozer / Caterpillar 825 B Sheepsfoot Compactor
Soil Description Grey clay USCS Classification - CL
Weather Partly cloudy and warm High - 92°F
Volume and Location of Material Placed During Shift 300 cubic yards placed on steep eastern slope

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	No	(1)

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES: (1) ERM-Environ, Inc currently does not have a smooth drum roller on site but has made arrangements for delivery of a Caterpillar CP553 vibratory roller tomorrow afternoon.

Construction Inspection
Initial Grading

Field Form

Project Name PPG HANNA
Project No. 515428
Unit No. _____
Borrow Area Smith Environmental Companies Inc

Date 8/3/22
Inspected by [illegible]
Max. Dry Density (pcf) 122.3
Opt. Moisture (%) 8.3

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor / John Deere 750B Dozer
Soil Description Brown sandy gravel USCS Classification - GP
Weather Partly cloudy and warm; High - 82°F
Volume and Location of Material Placed During Shift 330 cubic yards placed at various locations within the limits of the protective covers system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/3/93

Project Name PPG - LANCA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 121.3

Optimum Moisture (%) 9.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
FML-77	9510	48960	6"	114.1	94.0	7.7	-1.3	GP
FML-78	9700	48970	6"	115.9	95.5	8.0	-1.0	GP
FML-79	9640	49025	6"	113.7	93.7	10.2	+1.2	GP
FML-80	9708	49040	6"	115.2	95.0	13.7	+4.7	GP
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93.003

Date: 8-3-93

Report No.: 12

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 586 DS 3146

Proctor Values: ____ modified X standard Opt. Moisture 9 density (Y) 121.3

% Moisture Deviation Permitted _____

Test #	FML 77	FML-78	FML-79	FML-80
Location	6" N 9510 E 48960	6" N 9700 E 48970	6" N 9640 E 49025	6" N 9708 E 49040
Density Count (DC)	2731	2587	2573	2249
Moisture Count (MC)	104	109	131	171
Wet Density (WD)	122.9	125.2	125.3	131.0
Dry Density (DD)	114.1	115.9	113.7	115.2
Moisture (M)	8.8	9.3	11.6	15.8
Percent Moisture (%M)	7.7	8.0	10.2	13.7
Percent Compaction (DD/Y)	94.0	95.5	93.7	95.0
Pass/Fail (P or F)	P	P	P	P

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER / WILLIAM MONTGOMERY

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-3-93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 / 1 / 9- | NO. 1 / 1 / 6 | SHEET 1 OF 4

PROJECT NAME FMC Aberdeen | PROJECT NO. 512

FIELD ACTIVITY SUBJECT: Construction Quality Control

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect field operations - ERM-Environ lean, Inc personnel performing the following work activities:

1) Continued implementation of traffic control program with placement of traffic signs along Ekastown Road and stationing of a flagman at the intersection of Hranica Drive and Ekastown Road to direct traffic as needed during the day as trucks hauling clay enter and exit; other duties assigned to the flagman include signing in visitors, signing and receiving material bills of lading from truck drivers, monitoring condition of Hranica Drive, performing dust control periodically, although due to the light rain throughout the day, no dust control measures were required and providing status updates to project staff via mobile radio

2) Continued performing real-time dust and particulate monitoring downwind of work areas as specified; the instrument is checked approximately every two hours and monitoring data is recorded and filed in project field office trailer

3) Began segregating landfill debris (i.e., scrap steel, tires, etc) from material excavated from the riprap outlet (western surface water collection ditch) stockpiled on the northeastern corner of the protective cover system, utilizing Case 580 backhoe to facilitate operation and place material in 20-cy rolloff from Joseph J. Brunner Disposal Services- discussed this procedure with

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None	None
WEATHER CONDITIONS: Site Conditions - Damp Cloudy and mild with light rain; breezy High/Low Temp. - 74/61 °F Precipitation - 0.2"	IMPORTANT TELEPHONE CALLS: None

IT PERSONNEL ON SITE: William A. Martin

SIGNATURE William A Martin

DATE: 8/4/9-

127A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE | | | | NO. | | 1 | 7 | SHEET | | OF 4

PROJECT NAME [illegible] | PROJECT NO. [illegible]

FIELD ACTIVITY SUBJECT: [illegible]

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Site Manager, Tony Kessler advised that disposal was required for all surface landfill debris as long as it was void of potentially contaminated soil but any landfill debris encountered during excavation would be considered unsuitable fill material and should remain on site stockpiled in one location outside the protective cover system and ultimately covered - the dilemma is shipping potentially contaminated soil off site along with landfill debris and stockpiling would prevent this situation

4) Continued transferring clay from stockpiles on hilltop along western property line to top of steep slope using John Deere 555G trackloader in preparation of placement and compaction.

Note ERM-Envirodean, Inc. short one operator today - Bill Varos

5) Continued construction of 2' thick clay barrier layer with placement and compaction of gray clay from Snyder Associated Companies, Inc. in Kittanning, PA on the steep eastern slope; tandem dump trumps "stagger dumping 15 cubic yard load along top of steep eastern slope on the ash burn pile cap and at large stockpile at toe of 3H:1V slope throughout the day; inspect ash burn pile cap to verify that no damage is being incurred from heavy truck traffic - a thin layer of gray clay has been spread over area to facilitate operations - area is uniform and in good shape; the John Deere 750B dozer is being utilized to spread clay in loose

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A Montgomery DATE: 8/11/

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	08	04	93
NO.	1	1	8
SHEET	3	OF	4

OJECT NAME PPG - HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION GA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

*8" or less thick horizontal lifts down the slope and slowly "track" material in to achieve desired level of compaction; inspect placement and compaction operations to confirm coverage of areas, proper lift thickness, clod size (material does have considerable amounts of clods but readily break up with compaction effort - rain also helps breakdown clods), consistency of material, and correct implementation of compaction method - see attached clay barrier lay construction inspection form for more information; Paul Neff of Pedersen & Pedersen on site with Troxler nuclear gage to conduct in-place moisture/density testing; verified standardization of instrument and directed and supervised performance of 17 in-place moisture/density tests with 5 being in completed fill placement areas and 12 being in recently installed lifts of clay; each test surpassed the corresponding Standard Proctor Maximum Dry Densities for fill (121.3 pcf) and clay (111.5 pcf) thereby meeting the performance requirements for each material - for detail see the attached Field Moisture-Density Test Results sheets; received 77-15cy loads for a total of 155 cubic yards; Project Total to Date is 3555 cubic yards

6) Transferring stockpiles of woodchips from clearing, grubbing and chipping operation which had been staged at various locations to the main stockpiles using the Case 580 Super K backhoe to the main stockpiles

7) Received the Caterpillar CS-553 vibratory smooth drum roller at 1630 from Anthony Coal Company of Pittsburgh, PA

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery AR300485 DATE: 8/4/93

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	04	93
	NO.	1	1	9
	SHEET 4 OF 4			

FIELD ACTIVITY DAILY LOG

PROJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

8) Collected samples FM-10A/10B and FM-11 of in-place fill material and sample CL-2A/2B of in-place clay material in 5 gallon containers and temporarily stored in equipment trailer until scheduled hand delivery to Triad Engineering in Greensburg, PA; each sample will have the following tests performed: Atterberg Limits, Grain Size Analysis, Soil Classification, Moisture Content and Standard Proctor (every 2000 cy)

9) Maintenance of Hranica Drive and site access roads with fine grading and/or placement of No 57 stone as need using the John Deere 555G trackloader

A total of 5 ERM-Environclean Inc. personnel on site today including:

1 Site Manager
1 Foreman/Operator
1 Operator
1 Technician
1 Laborer

Work Shift - 0600-1730

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/4/93

AR300486

EPA - 86

Sample Chain of Custody

W.O.No.: 992-87 | Project Name: Hconica Landfill

Sampler: T. Kessler

ERM T.R. Number	Date	Time	COMP	GRAB	Sample Location	Number of Containers	ASTM D 2216 Moist. Cont.	ASTM D 4318 Atter. Lim.	ASTM D 422 Sieve Size	ASTM D 698 Std Proct.	ASTM D 2487 Soil Class	Remarks
010599	4 Aug 93	12:05pm		X	Cap Area Sta. 440+00 ; 93+50	(1) 5gl			X			CL-2B
010600	"	12:00pm		X	"	(1) 5gl	X	X	X	X		CL-2A
010601	"	11:50am		X	Cap Area Sta. 441+25 ; 97+20	(1) 5gl	X	X	X	X		FM-11
010602	"	11:45am		X	Cap Area Sta. 440+00 ; 87+50	(1) 5gl			X			FM-10B
010603	"	11:40am		X	"		X	X	X	X		FM-10A

Sample Relinquished	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
10599 (CL-2B)			TEI	8-5-93		LAB TESTING
10600 (CL-2A)			TEI	8-5-93		LAB TESTING
10601 (FM-11)			TEI	8-5-93		LAB TESTING
10602 (FM-10B)			TEI	8-5-93		LAB TESTING
10603 (FM-10A)			TEI	8-5-93		LAB TESTING

ARS00409

COPIES White & Yellow copies accompany sample shipment to laboratory Yellow copy retained by laboratory White copy to be returned to ERM for files Pink copy retained by sampler Gold copy extra copy as needed (warehouse)

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. -- 992-97	**2** Sample Concentration: ☐ Low Concentration ☐ Medium Concentration
Project Name/Location: Hronica Landfill, Sarver, PA	FM-104 010603
3 Ship to: TRIAD Eng. Co. 918 St. Clair Way, P.O. Box 1329, Greensburg, PA 15601, Attn: John Kent	
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact: Sampler: J. Kessler; Project Manager: D. Guzik; Phone No. 772-1022
6 Shipping Information: (Name of Carrier) — ; (Date Shipped) 6 Aug 97; (Airbill Number)	**7** Specify Type of Analyses, Number of Containers, Approx. Volume
8 Sample Location: Cap area Sta. 490+00 ; 97+50	Date: 4 Aug 97; Time: 11:40 am

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont ASTM D 2216	1	5 gl
Atterb. Lim " " 4318		
Grain Size " " 422		
Soil Class " " 2487		

9 Sample Description: ☐ Surface Water ☒ Soil ☐ Ground Water ☐ Solid ☐ Leachate ☐ Other: ☐ Sediment	**10** Special Handling (e.g. Safety Procedures/Hazardous)
	Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☒ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-in Person's Signature: John Kent

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

ERM

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Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location

Hominy Landfill
Seven, PA

2 Sample Concentration

- ☐ Low Concentration
- ☐ Medium Concentration

FM-10B
010602

3 Ship to: TRIAD Eng. Co.
918 St. Clair Way
P.O. Box 1829
Greensburg, PA 15601
Attn: John Kent

4 Sample Matrix

- ☐ Liquid
- ☒ Solid
- ☐ Other

5 Sampling Personnel Contact

Sampler: T. Klossler
Project Manager: D. Gruzik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P. Fish
(Date Shipped) 6 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
STL 10CTM ASTM D 698	1	5 gl.

8 Sample Location

Cap mix sta. 490+00
& 97+50

Date: 4 Aug 93
Time: 11:45 am

9 Sample Description

- ☐ Surface Water
- ☒ Soil
- ☐ Ground Water
- ☐ Solid
- ☐ Leachate
- ☐ Other:
- ☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☐ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300489

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location

Horsin Landfill
Sarver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

FM-11
010601

3 Ship to: TRIAD Eng Co.
918 St. Clair Way
P.O Box 1029
Greensburg PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Klossner
Project Manager: R. Gurzik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P. Fisher
(Date Shipped) 6 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist Cont. ASTM D 2216	1	5gl
Atter. Limits " " 4318		
Grain Size " " 422		
Soil Class " " 2487		

8 Sample Location

Cap area sta. 491+25
to 497+20

Date: 4 Aug 93
Time: 11:50 am

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

R300490

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration: ☐ Low Concentration ☐ Medium Concentration
Project Name/Location: Hanover Landfill Sarvis #4	**3** Ship to: TRIAD Eng G 918 ST. Clair Way P.O. Box 1029 Greensburg PA 15601 Attn: John Kent
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact: Sampler: T. Kessler; Project Manager: D. Guzik; Phone No. 772-1022
6 Shipping Information: (Name of Carrier) — P. Fisher; (Date Shipped) 6 Aug 93; (Airbill Number)	**7** Specify Type of Analyses, Number of Containers, Approx. Volume
8 Sample Location: Cap Area STA 490+03 ℄ 93+50	**9** Sample Description: ☐ Surface Water ☒ Soil ☐ Ground Water ☐ Solid ☐ Leachate ☐ Other: ☐ Sediment
Date: 4 Aug 93; Time: 12:00 pm	**10** Special Handling (e.g. Safety Procedures/Hazardous): Additional comments: (Specify data package, rush work, special detection limits, etc.)

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5 gl
Atterberg Lim. " " 4318		
Grain Size " " 422		
Soil Class " " 2487		
CL-2A 010600		

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☐ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-in Person's Signature:

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300491

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. - 992-97	**2** Sample Concentration: ☐ Low Concentration ☐ Medium Concentration — CL-2B 010599
Project Name/Location: Hromisin Landfill, Sarver PA	**3** Ship to: TRIAD ENG, Co. 918 St. Clair Way P.O. Box 1829 Greensburg PA 15601 Attn: John Kent
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact: Sampler: J. Klessler; Project Manager: D. Guzik; Phone No. 772-1022
6 Shipping Information: (Name of Carrier) — P. Fisher; (Date Shipped) 6 Aug 93; (Airbill Number)	**7** Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
STL Proct: ASTM D 698	1	5gl

8 Sample Location: Cap Area STA. 490+00 & 93+50

Date: 4 Aug 93
Time: 12:05 pm

9 Sample Description: ☐ Surface Water ☒ Soil	**10** Special Handling (e.g. Safety Procedures/Hazardous):
☐ Ground Water ☐ Solid	
☐ Leachate ☐ Other:	Additional comments: (Specify data package, rush work, special detection limits, etc.)
☐ Sediment	

11 Condition of Samples Received (to be completed by Laboratory Log-In.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☒ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-In Person's Signature:

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300492

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. —
Borrow Area Snyder Associated Companies Inc

Date 8/4/93
Inspected by William A Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment John Deere 750B Dozer / Caterpillar 825B Sheepsfoot Compactor
Soil Description Gray Clay USCS Classification - CL
Weather Cloudy and mild I breezy with light rain showers High - 71°F
Volume and Location of Material Placed During Shift 1155 cubic yards placed on steep eastern slope and stockpiled on hilltop adjacent to ash burn pile cap and toe of 3H:1V slope

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	No	(1)

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES: (1) ERM-Envirocleen Inc. procured a Caterpillar CP553 vibratory smooth drum roller which was delivered at 1630 and will begin utilizing tomorrow.

Field Moisture-Density Test Results

Date 8/4/93

Project Name PPG - HEANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) Fill - 121.3 / Clay - 111.5

Optimum Moisture (%) Fill - 9.0 / Clay - 17.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
FML-81	9610	49055	6"	110.8	91.3	12.7	+3.7	GP
FML-82	9760	49090	6"	117.2	96.6	11.2	+2.2	GP
FML-83	9860	49100	6"	115.1	94.9	10.8	+1.8	GP
FML-84	9850	49000	12"	118.7	97.8	11.0	+2.0	GP
FML-85	9850	49000	6"	114.4	94.3	11.2	+2.2	GP
CBL-5	9060	48755	6"	101.7	91.2	19.7	+2.7	CL
CBL-6	9065	48810	12"	109.3	98.0	15.6	-1.4	CL
CBL-7	9065	48760	6"	105.3	94.4	15.8	-1.2	CL
CBL-8	9140	48800	12"	105.2	94.4	17.9	+0.9	CL
CBL-9	9140	48800	6"	105.2	94.4	17.5	+0.5	CL
CBL-10	9180	48760	12"	111.1	99.6	14.1	-2.9	CL
CBL-11	9180	48760	6"	110.3	98.9	14.3	-2.7	CL
CBL-12	9230	48820	12"	109.9	98.6	12.7	-4.3	CL
CBL-13	9230	48820	6"	103.1	92.5	14.5	-2.5	CL
CBL-14	9340	49050	12"	103.2	92.6	13.0	-4.0	CL
CBL-15	9330	49070	6"	101.1	90.7	13.1	-3.9	CL
CBL-16	9370	49070	6"	105.8	94.9	12.8	-4.2	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-4-93

Report No.: 13 PAGE 1 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 590 DS 3190

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 5	CBL 6	CBL 7	CBL 8
Location	N 9060 E 48755	N 9065 E 48810	N 9065 E 48760	N 9140 E 48800
Density Count (DC)	2811	539	2801	582
Moisture Count (MC)	213	185	181	202
Wet Density (WD)	121.7	126.4	122.0	124.1
Dry Density (DD)	101.7	109.3	105.3	105.2
Moisture (M)	20.0	17.1	16.7	18.9
Percent Moisture (%M)	19.7	15.6	15.8	17.9
Percent Compaction (DD/Y)	91.2	98.0	94.4	94.4
Pass/Fail (P or F)	P	P	P	P
	6" DEPTH	12" DEPTH	6" DEPTH	12" DEPTH

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER & WILLIAM MONTGOMERY

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-4-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA YANDELL

Project #: 93-009

Date: 8-4-93

Report No.: 13 PAGE 2 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 5790 DS 3190

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 9	CBL 10	CBL 11	CBL 12
Location	N 9140 E 48800	N 9180 E 48760	N 9180 E 48760	N 9230 E 48820
Density Count (DC)	2689	534	2553	590
Moisture Count (MC)	198	171	172	155
Wet Density (WD)	123.7	126.7	126.1	123.9
Dry Density (DD)	105.2	111.1	110.3	109.9
Moisture (M)	18.4	15.7	15.8	14.0
Percent Moisture (%M)	17.5	14.1	14.3	12.7
Percent Compaction (DD/Y)	94.4	99.6	98.9	98.6
Pass/Fail (P or F)	P	P	P	P
	6" DEPTH	12" DEPTH	6" DEPTH	12" DEPTH

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-4-93 (Date)

CERTIFIED

NUCLEAR DENSOMETER COMPACTION TEST DATA

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-4-93

Report No.: 13 PAGE 3 OF 4

Gauge #: 17759 Standard Counts: MS 590 DS 3190

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 13	CBL 14	CBL 15	CBL 16
Location	N 9230 E 48820	N 9340 E 49050	N 9330 E 49070	N 9370 E 49070
Density Count (DC)	3080	766	3363	2985
Moisture Count (MC)	164	149	148	151
Wet Density (WD)	118.0	116.6	114.4	119.4
Dry Density (DD)	103.1	103.2	101.1	105.8
Moisture (M)	14.9	13.4	13.3	13.6
Percent Moisture (%M)	14.5	13.0	13.1	12.8
Percent Compaction (DD/Y)	92.5	92.6	90.7	94.9
Pass/Fail (P or F)	P	P	P	P
	6" DEPTH	12" DEPTH	6" DEPTH	6" DEPTH

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-4-93 (Date)

AR300497

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-4-93

Report No.: 13 PAGE 4 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 590 DS 3190

Proctor Values: ____ modified X standard Opt. Moisture _____ density (Y) 121.3

% Moisture Deviation Permitted _____

Test #	FML 81	FML 82	FML 83	FML 84	FML 85
Location	N 9610 E 49055	N 9760 E 490.90	N 9860 E 49100	N 9850 E 49000	N 9850 E 49000
Density Count (DC)	2627	2319	2473	453	2491
Moisture Count (MC)	156	147	140	146	1.
Wet Density (WD)	124.9	130.4	127.6	131.8	127.3
Dry Density (DD)	110.8	117.2	115.1	118.7	114.4
Moisture (M)	14.1	13.2	12.5	13.1	12.9
Percent Moisture (%M)	12.7	11.2	10.8	11.0	11.2
Percent Compaction (DD/Y)	91.3	96.6	94.9	97.8	94.3
Pass/Fail (P or F)	P	P	P	P	P
	6" DEPTH	6"	6"	12" D	6" D

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-4-93 (Date)

AR300498

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	05	93
	NO.	1	2	0
	SHEET		OF	4

OJECT NAME PPG - HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect field operations - ERM-Enviroclean Inc. personnel performing the following work activities today:

1) Continued implementation of traffic and dust control programs; set traffic warning signs (i.e., Flagman Ahead and Truck Crossing) as designated locations and positioned flagman at end of Hranica Drive to receive trucks, sign material bills, direct traffic as needed, sign-in visitors, monitor dust conditions of road and perform dust control measure by periodically (every 2 hours or so) applying water along the residential segment of Hranica Drive and at least once a day the entire site access road using the Hertz 500 gallon water tank pulled by the ERM-Enviroclean, Inc. Chevrolet pick-up; Flagman also keeps in communication with project staff to provide information concerning condition of roads, status of trucks, visitors, etc.

2) Continued construction of 2' clay barrier layer with placement and compaction of gray clay from Snyder Associated Companies, Inc. in Kittanning PA on steep (2.5-2.0H:1V) eastern slope within the limits of the protective cover system; note that adjoining slope downgradient of 2' clay barrier layer must also be built up to construct a 2H:1V slope that ties into the existing grade at the toe and will consist primarily of fill and clay; inspect operations and observe the John Deere 750B dozer spreading the stockpiled material in loose lifts of ≤ 8" or less down the slope and continuously compacting the clay by tracking over it, with the dozer tracks parallel to the slope - verify all identified are being covered as outlined in the design, lifts are

VISITORS ON SITE: Art Estabrook - CHZM Hill Assoc.
Robert Kimball and Chris Dougherty - DAER
Tom Ebbert - PRP Representative - PPG Industries Inc.
Frank Jones - Pennsylvania Drilling Co.
Dave Gucik - ERM-Enviroclean Inc

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
Stockpile of excavated landfill debris in truck turnaround at top of hill and cover accordingly.

WEATHER CONDITIONS: Site Conditions - Dry
Partly cloudy and mild
High/Low Temp: 76/58°F.
Precipitation - None

IMPORTANT TELEPHONE CALLS:
None

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery

AR300499

DATE: 8/5/93

32"A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	05	93
	NO.	1	2	1
	SHEET	2	OF	4

PROJECT NAME PPG-HRANK CA | PROJECT NO. 515478

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

placed properly; material being received and used is consistent with the specifications and original sample description, monitoring amount and size of clods which are present in this material and seem to breakdown during physical handling associated with compaction, correct implementation of the placement and compaction methods which vary whether on slopes steeper than 3H:1V - for additional inspection information see the attached clay barrier layer construction inspection forms; also completing and maintaining sealing completed work areas at the end of each day using the CAT CS-533 vibratory smooth drum roller - combination of spreading clay with dozer followed by 4 passes of CAT 825B sheepfoot compactor concluded with crown and seal with smooth drum roller produces excellent compaction results as well as a quality in-place lift of clay; Paul Neff Troxler nuclear gage technician and surveyor assigned to project by Pedersen Pedersen on site to conduct in-place moisture/density testing; inspected calibration procedure and supervised performance of 13 test of which all easily surpassed the performance requirement of 90% of the Standard Proctor Maximum Dry Density (111.5 pcf) - for detailed information see the Field Moisture-Density Test Results sheets attached to this report; received a total of 72 - 15 cy loads for a grand total of 1080 cubic yards today; Total clay received to date for project is 4635 cy

3) Hand delivered fill material samples FM-10A/10B and FM-11 and clay sample CL-1 to Triad Engineering, Inc. in Greensburg, PA for the required geotechnical testing; Pete Fisher performs this task two times a week usually Tuesday and Thursday

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE: William A. Montgomery AR300500 DATE: 8/5/93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 05 93 | NO. 1 2 2 | SHEET 3 OF 4

PROJECT NO. 515428

ECT NAME PPG - HRANICA

D ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

CRIPTION OF DAILY ACTIVITIES AND EVENTS:

4) Continued excavation of western surface water collection ditch using the John Deere 750B long track dozer; instructed ERM-Environclean Inc personnel to remove approximately 15' of recently installed geotextile and riprap since the width of the geotextile was deficient; approximately 9' width of geotextile required to sufficiently line the triangular 2'-4'-3' depth ditch prior to placement of 6-9" of riprap; remove defective material using Case 580 backhoe and continue constructing ditch to proper dimensions up to truck entrance using the John Deere 750B dozer; ditch alignment is west from the beginning of the riprap outlet at the north access road where it follows the road to the top of hill; ERM-Environclean Inc plans to install a 24' pipe in the ditch to allow truck traffic into the protective cover system areas requiring clay placement

5) Held 8th weekly Progress Meeting; ERM-Environclean, Inc Project Manager, Dave Gazik on site to conduct meeting; Ann Estabrook of CH2M-Hill on site for weekly oversight inspection and attend meeting; Chris Dougherty and Bob Kimball of the Pennsylvania Department of Environmental Resources also on site this week to attend meeting and discuss bridge permit requirements; PPG Representative Tom Ebert of PPG Industries, Inc. on site as well; meeting consists of tour of site reviewing previous week's progress and an informal meeting in the field office trailer following a set agenda by the Manager, Tony Kessler conducted the meeting today - see the attached minutes for details; Bob Kimball stated that a small projects stream encroachment permit under the bridge upgrades on

VISITORS ON SITE:

See sheet 1 of 4

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.

See sheet 1 of 4

WEATHER CONDITIONS:

See sheet 1 of 4

IMPORTANT TELEPHONE CALLS:

See sheet 1 of 4

IT PERSONNEL ON SITE: William A Montgomery

DATE: 8/5/93

SIGNATURE William A. Montgomery

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG				
	DATE	08	05	13
	NO.	1	2	3
	SHEET	4	OF	4

FIELD ACTIVITY DAILY LOG

PROJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Little Bull Creek and requested that the ditch paralleling Hranica Drive be reexcavated to provide proper drainage and reiterated that the western surface water collection ditch be installed as soon as possible; another issue discussed during the meeting was management of landfill debris discovered during excavation I pointed out that landfill debris found on the ground surface within the designated work areas has been placed in rolloff containers and disposed by Joseph J. Brunner Disposal Service in Zelienople, PA whereas landfill debris discovered during excavation operations should be stockpiled on site as unsuitable fill outside the limits of the protective cover system and covered accordingly since potentially contaminated soil may be mixed with the landfill debris; the suggested location of the stockpile of unsuitable fill is in the truck turnaround area at the top of hill between the main site access road and the western property line; the approach was approved by Bob Kimball and Chris Daugherty of EPA and will be implemented next week

A total of 5 ERM-Enviroclean, Inc personnel were on site today including:

1 Site Manager
1 Foreman/Operator (1/2 Day)
1 Operator
1 Technician
1 Laborer

Work Shift - 0600-1730

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/5/93

32°A-7-86

Rec'd Aug. 11, 93

MEMORANDUM

ERM-ENVIROCLEAN, INC.

To: Tom Ebbert, PPG

From: Dave Guzik DAG

Date: 9 August 1993

Regarding: Hranica Weekly Project Status Report and Meeting Minutes

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Meeting: Meeting No. 8
5 August 1993, 9:00AM

Attendees:

Tom Ebbert (PPG)	Anne Estabrook (CH_2M Hill)
Dave Guzik (ERM)	Bob Kimball (PADER)
Tony Kessler (ERM)	Chris Dougherty (PADER)
Bill Montgomery (IT)	

Review and approval of the minutes of the previous meeting.

- No changes were noted regarding the minutes of the previous meeting.

Review of action items from previous meeting.

- The placement of required fill material has been completed. An estimated 12,000 in-place cubic yards of fill were required. A final calculation of the fill amount upon receipt and review of the surveyor's calculations.

- Silt fence damaged during the 28 July thunderstorm was repaired. In addition, ERM has rolled the lower portion of the site with the sheepsfoot compactor to reduce the potential for sheet runoff in this area.

- Excess fill placed along the southwest corner of the site has been regraded to conform with the required site grades.

- ERM has commenced the installation of the west surface water collection ditch. During the installation of the ditch, ERM encountered a former concrete decontamination pad, and buried debris consisting primarily of scrap metal. It was agreed at this meeting that ERM would locate a suitable point outside the limit of the protective cover system and bury this material onsite. PADER personnel attending the meeting approved this course of action. PADER personnel requested that the west surface water collection ditch be completed as soon as possible.

- A smooth drum roller has been brought to the site to assist in clay placement and crown and sealing of the clay layer.

Field observations, problems, conflicts.

- ERM will continue relations with the public and neighbors (e.g. dust control, prevention of speeding, and access issues). Watering and calcium application is continuing along Hranica Drive.

- PADER personnel requested that the west surface water collection ditch be installed as soon as possible. It is ERM's understanding that the surface water collection ditch must be installed prior to the placement of clay on the lower portion of the site.

Problems which may impede construction schedule and proposed corrective action.

- The placement of additional fill material, coupled with time lost due to inclement weather, is likely to add approximately one week to the overall duration for construction.

Review of schedule and status of work.

- Work on Saturdays will continue at the discretion of ERM.

Work or testing accomplished since last meeting.

- Chips generated during the grinding of stumps have been stockpiled onsite pending incorporation within the soil cover layer.

- Site grading and the importation and placement of fill material has been completed.

- Compaction tests and the collection of QA/QC field verification samples have been performed as required.

- The site grading survey has been completed.

- ERM has commenced the installation of the clay protective layer.

Rework items identified/completed since last meeting.

- Excess fill placed along the southwest corner of the site has been regraded and sloped to tie in the grades of the protective cover to the existing site grade on the adjacent Pajer property.

- All damaged silt fence has been repaired.

Corrective measures and procedures to regain progress in accordance with project schedule.

- A 6-day per week work schedule will be maintained at the discretion of ERM.

Review of construction schedule including testing requirements and coordination requirements for the next two weeks.

- Clay placement activities will continue.
- The placement of the soil cover layer along the southwestern property boundary will be completed to facilitate completion of the perimeter fence.
- The performance of compaction tests and the collection of QA/QC samples will continue.
- ERM will sample onsite drums for analysis by PPG.
- ERM will submit a revised RA Work Schedule following the next weekly meeting.
- The closure of 4 inactive monitoring wells on the Pajer property is expected to be completed.

Revisions of schedule, if required.

- The proposed completion date will be extended one week due to the placement of additional fill and delays caused by inclement weather.

Review of submittal schedules; expedite as required.

- None at this time.

Maintenance of quality and safety standards.

- QA/QC verification testing and inspections will continue

Pending changes or substitutions.

- Not applicable.

Other business.

- The requirements for allowing the upgraded Hranica Drive stream crossings to remain in place on a permanent basis were discussed with Bob Kimball of PADER. Bob stated that a small project stream encroachment permit would be required. He will get back to ERM with the specific requirements of the permit application.

cc: Gary Crouth (ALCOA)
Garth Connor (USEPA)
Robert Kimball (PADER)
William Montgomery (IT)
Elizabeth Mikulis (CH_2M Hill)
Anne Estabrook (CH_2M Hill)
Stan Porfido
Mike Coia
Tony Kessler

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. _____
Borrow Area Snyder Associated Companies, Inc

Date 8/5/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 1165
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor/Caterpillar CP553 Vibratory Roller, John Deere 750B Dozer
Soil Description Gray clay USCS Classification - CL
Weather Partly cloudy and mild High - 76°F
Volume and Location of Material Placed During Shift 1080 cubic yards placed on steep eastern slope

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/5/93

Project Name PPG-TRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-17	9355	49050	6"	101.3	90.8	12.9	-4.1	CL
CBL-18	9300	49125	6"	101.0	90.6	13.8	-3.2	CL
CBL-19	9250	48900	12"	109.9	98.6	12.5	-4.5	CL
CBL-20	9250	49900	6"	108.6	97.4	12.9	-4.1	CL
CBL-21	9250	48740	12"	113.0	101.3	16.3	-0.7	CL
CBL-22	9250	48790	6"	113.3	101.7	16.2	-0.8	CL
CBL-23	9060	48740	12"	105.7	94.8	19.3	+2.3	CL
CBL-24	9060	48740	6"	111.0	99.6	18.1	+1.1	CL
CBL-25	9150	48775	6"	109.6	98.3	17.0	0	CL
CBL-26	9300	48880	12"	109.1	97.8	15.8	-1.2	CL
CBL-27	9300	48980	6"	107.0	96.0	17.0	0	CL
CBL-28	9370	49080	6"	106.7	95.7	15.1	-1.9	CL
CBL-29	9360	49150	6"	101.5	91.1	14.7	-2.3	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-5-93

Report No.: 14 PAGE 1 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 597 DS 3208

Proctor Values: ___ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 17	CBL 18	CBL 19	CBL 20
Location	N 9355 E 49050	N 9300 E 49125	N 9250 E 48900	N 9250 E 48900
Density Count (DC)	3381	3332	600	2787
Moisture Count (MC)	148	156	154	157
Wet Density (WD)	114.4	115.0	123.6	122.6
Dry Density (DD)	101.3	101.0	109.9	108.6
Moisture (M)	13.1	13.9	13.7	14.0
Percent Moisture (%M)	12.9	13.8	12.5	12.9
Percent Compaction (DD/Y)	90.8	90.6	98.6	97.4
Pass/Fail (P or F)	P	P	P	P
	6"	6"	12"	6"

Notes: _____

THEY BROUGHT IN A FLAT ROLLER FOR COMPACTION YESTERDAY AFTERNOON

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Signature Paul J Neff 8-5-93 Date

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-5-93

Report No.: 14 PAGE 2 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 597 DS 3208

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

X ROLLER COMPACTED X

Test #	CBL 21	CBL 22	CBL 23	CBL 24
Location	N 9250 E 48790	N 9250 E 48790	N 9060 E 48740	N 9060 E 48740
Density Count (DC)	457	2248	543	2277
Moisture Count (MC)	200	200	220	216
Wet Density (WD)	131.4	131.7	126.2	131.1
Dry Density (DD)	113.0	113.3	105.7	111.0
Moisture (M)	18.4	18.4	20.5	20.1
Percent Moisture (%M)	16.3	16.2	19.3	18.1
Percent Compaction (DD/Y)	101.3	101.7	94.8	99.6
Pass/Fail (P or F)	P	P	P	P
	12"	6"	12"	6"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-5-93 (Date)

AR300510

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-5-93

Report No.: 14 PAGE 3 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 597 DS 3208

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 25	CBL 26	CBL 27	CBL 28	CBL 29
Location	N 9150 E 48775	N 9300 E 48880	N 9300 E 48880	N 9370 E 49080	9360 49150
Density Count (DC)	2435	545	2608	2767	3213
Moisture Count (MC)	202	188	198	177	166
Wet Density (WD)	128.2	126.2	125.2	122.8	116.4
Dry Density (DD)	109.6	109.1	107.0	106.7	101.5
Moisture (M)	18.6	17.2	18.2	16.1	14.9
Percent Moisture (%M)	17.0	15.8	17.0	15.1	14.7
Percent Compaction (DD/Y)	98.3	97.8	96.0	95.7	91.1
Pass/Fail (P or F)	P	P	P	P	P
	6"	12"	6"	6"	6"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Signature _____ 8-5-93 (Date)

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	06	93
	NO.	1	2	4
	SHEET	1	OF	?

PROJECT NAME: PPG-HRANICA | PROJECT NO.: 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect field operating - ERM-Southeast, Inc personnel performed the following work activities today:

1) Continued implementation of dust and traffic control procedures with the placement of traffic warning signs along each leg of Ehrenfeld Road prior to Hranica Drive and stationing of a flagman at the intersection of these two roads to sign and retain materials billsold to divert traffic, as necessary, continue community relations with residents along Hranica Drive by listening to reports/complaints and relaying this information to the project staff, monitoring the dust conditions on Hranica Drive and administering water to the residential segment of the gravel road periodically using the Hertz 500 gallon water tank pulled by the ERM-Environmental, Inc Chevrolet pick-up truck and providing truck/road status updates to the project staff.

2) Continued construction of clay barrier layer of the protective cover system with the placement and compaction of gray clay from similar Associated Companies, Inc on the steep (2.5-20 H:1V) east-to-west facing slope bisecting the site in an east-to-west fashion; clay material being stockpiled on the hilltop adjacent the ash burn pile area by tandem dump trucks "stagger" dumping approximate 15 cy loads at the top of eastern slope and John Deere 750B dozer spread piles of clay in loose, horizontal lifts approximately 8" or less down the slope over the previous scarified slope and compact by slowly "tracking" the material; inspected ash burn pile area to confirm that existing

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None	None
WEATHER CONDITIONS: Site Conditions - Dry Partly cloudy and warm High/Low temp - 80/60°F Precipitation - None	IMPORTANT TELEPHONE CALLS: Mark Wisberg - IT Corporation - Called to check status of Groundwater Verification Sheet revision in response to USEPA and PADER comments

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE: William A. Montgomery DATE: 8/6/93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	06	93
	NO.	1	2	
	SHEET	2	OF	2

OJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

cap is without ding truck traffic with no signs of rutting or sm... damage inspect placement and compaction operations to verify that proper scarification is performed, all areas specified in the remedial design are covered accordingly, correct lift thickness are placed, consistency of material, minimization of clods, and adherence to compaction methods - for addition inspection information see the attached Clay Barrier Layer Construction Inspection form; supervised Paul Nettleton, nuclear gage technician from Pedersen & Pedersen of Valencia, PA in calibration and performance of in-place moisture/density testing - a total of five tests were conducted as outlined by the attached Proctor Moisture/Density Test Results sheets with each test surpassing the performance requirement of 90% of the Standard Proctor Maximum Dry Density; a total of 77 - 15cy trucks were received for a daily total of 1155 cy; Project total To Date is 5790 cubic yards.

3) Transferred load of clay unloaded at the base of the Hranica Drive hill using the Case 580 Super K backhoe

4) Installed 24' 12" HDPE corrugated pipe along ditch to provide truck access to northern lower areas; placed on bed of No. 57 stone and covered with 6" soil

A total of 4 ERM-Environdean, Inc. on site today including:

Work Shift - 0600-1430

1 Site Manager
1 Operator
1 Technician
1 Laborer

Note that Foreman, Ken Kelly on excavation and operator, Bill Varos out due to severe sunburn

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 2	See sheet 1 of 2
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 2	See sheet 1 of 2

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/6/93

4R300513

32-A 7-86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. –
Borrow Area Snyder Associated Copper Inc

Date 8/6/93
Inspected by William A Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment John Deere 750B Dozer / CAT 825B Sheepsfoot Compactor / CAT CP553V Vibratory Roller
Soil Description Gray clay USCS Classification - CL
Weather Partly cloudy and warm High - 80°F
Volume and Location of Material Placed During Shift 1155 cubic yards placed on steep eastern slope and stockpiled on hilltop adjacent to ash burn pile cap

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/6/93

Project Name PPG-HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-30	9250	49200	6"	108.2	97.0	13.2	-3.8	CL
CBL-31	9320	49170	12"	102.7	91.6	12.4	-4.6	CL
CBL-32	9320	49170	6"	101.8	91.3	12.3	-4.7	CL
CBL-33	9340	49080	12"	103.7	93.0	12.2	-4.8	CL
CBL-34	9340	49080	6"	100.4	90.1	12.8	-4.2	CL
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-6-93

Report No.: 15 PAGE 1 OF 2

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 590 DS 3145

Proctor Values: ____ modified __X__ standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 30	CBL 31	CBL 32	CBL 33
Location	N 9250 E 49200	N 9320 E 49170	N 9320 E 49170	N 9340 E 49080
Density Count (DC)	2737	808	3315	763
Moisture Count (MC)	158	142	141	142
Wet Density (WD)	122.5	114.8	114.4	116.4
Dry Density (DD)	108.2	102.7	101.8	103.7
Moisture (M)	14.3	12.7	12.6	12.7
Percent Moisture (%M)	13.2	12.4	12.3	12.2
Percent Compaction (DD/Y)	97.0	91.6	91.3	93.0
Pass/Fail (P or F)	P	P	P	P
	6"	12"	6"	12"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-6-93 (Date)

R300516

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA · LANDFILL

Project #: 93-003

Date: 8-6-93

Report No.: 15 PAGE 2 OF 2

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 590 DS 3145

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 34	~~CBL 35~~		
Location	N 9340 E 49080	~~N~~ ~~E~~		
Density Count (DC)	2401			
Moisture Count (MC)	144			
Wet Density (WD)	113.3			
Dry Density (DD)	100.4			
Moisture (M)	12.9			
Percent Moisture (%M)	12.8			
Percent Compaction (DD/Y)	90.1			
Pass/Fail (P or F)	P			

6"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) AR3005 | 8-6-93 (Date)

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
DATE	08	07	93
NO.	1	2	6
SHEET	1	OF	2

PROJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive on site; Ken Swindell, Env Project Manager, Dave Sozik on site today acting as site Manager - inspect field operations & verified performed the following work activities:

1) Implemented traffic control with positioning of flagman (Daryl Taylor) at intersection of Hranica Drive and Ekastown Road to monitor truck traffic (sign in/sign out) keep copies of daily bills of lading, direct traffic, as necessary, provide status updates to project staff upon request via two-way radio, and monitor dust condition of Hranica Drive; also responsible for setting up and taking down traffic warning signs (i.e.: Flagman Ahead and Trucks Crossing) on Ekastown Road and performing dust control measures

2) Performed dust control with application of water on roadway segment of Hranica Drive using the Hertz 500 gallon water tank pulled by the company Chevrolet pick-up; truck is filled with water from tap at Varos residence supplied by Buffalo Township Municipal Water Authority and applied every 2 hours, or as needed inspected roadway and verify little or no generation of dust because of rain and previous calcium applications, with additional upper portion (hill) of Hranica Drive and main site access road are damp due to previous night's rain

3) Continued construction of clay barrier layer of protective cover system with placement and compaction of gray clay from Snyder

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None	None
WEATHER CONDITIONS: Site Condition - Damp Partly cloudy and pleasant High/Low Temp - 79/59°F Precipitation - 0.3"	**IMPORTANT TELEPHONE CALLS:** None

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/7/93

32-A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 09 07 | NO. 1 2 7 | SHEET 2 OF 2

OJECT NAME PPG-WAIN'A | PROJECT NO. 5'5[illegible]

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION [illegible]

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Associated Companies, Inc.; tandem dump trucks "spot" dumping approx. to 15 cubic yard loads on hilltop adjacent to ash burn pile cap just north of the high point where the John Deere 750B dozer spreads the clay in loose horizontal lifts 8" or less in thickness over the area [illegible] lift is complete the CAT 825B sheepsfoot compactor is utilized to compact the clay by passing a minimum of [illegible] coverage of 2 passes in each of two perpendicular directions; once the compaction effort has been achieved the process is repeated after scarifying the previous lift using the sheepsfoot compactor; inspected clay placement and compaction to verify coverage, proper lift thicknesses, minimization of clods which are present but readily break up with application of water and/or compaction, consistency of material, and correct implementation of compaction method - for further information pertaining to inspection see the attached Clay Barrier Layer Construction Inspection Form; received 84 - 15 cy load of gray clay for a total of 1260 cubic yards; Cumulative Project total to Date is 7050 cy; all work areas except slope were crowned and sealed using the Caterpillar CS-553 vibratory smooth drum rolls

A total of 3 ERM - Environclean, Inc personnel on site today included;

1 Project Manager
1 Operator
1 Technician

Work Shift 0600 - 1400

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 2	See sheet 1 of 2
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 2	See sheet 1 of 2

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 9/-[illegible]

AR300519

32[illegible]-7-86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANCA
Project No. 515428
Unit No. —
Borrow Area Snyder Associated Composite

Date 8/7/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment John Deere 750B Dozer/CAT825B Sheepsfoot Compactor/CAT CP563V/b Roller
Soil Description Grey Clay USCS Classification - CL
Weather Partly cloudy and pleasant High - 790F
Volume and Location of Material Placed During Shift 1200 cubic yards placed on hilltop adjacent to ash burn pile c-p north of high point flow line; stockpiling.

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	08	09	93
NO.	1	2	5
SHEET	1	OF	2

OJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site inspect site operations - ERM. Envirodem, Inc personnel performing the following work activities:

1) Continued implementing traffic and dust control program on Hranica Drive; traffic warning signs and flagmen positioned accordingly during complete haul period. Flagmen duties include directing traffic as needed, signing and retaining material bills, reporting resident complaints/requests, monitoring and provide status of truck traffic and haul conditions on Hranica Drive and performing dust control on the residential segment of Hranica Drive by periodically applying water, to the roadway

2) Continued construction of clay barrier layer of protective cover system with placement and compaction of gray clay from Snyder Associated Companies, Inc of Kittanning, PA on the steep (2.5-2H:1V) slope, the hilltop adjacent to the ash burn pile cap, and over the other lower northern areas; the John Deer 75-B dozer is utilized to spread stockpiles along top of slope as well as, today's imported clay in loose horizontal lift of 8" or less down the steep slope and compacted by "tracking" material in slowly - instruct operator to taper clay placement from the toe of slope and continue upward to the limit of the protective cover system which crosses the steep slope in diagonal fashion to avoid overbuilding; the Caterpillar 825B sheepsfoot compactor is used on slopes less than 3H:1V to spread stockpiled clay at toe of slope and "scatter" dumped material received today in loose 8" thick

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None	None
WEATHER CONDITIONS: Site Conditions Dry Partly cloudy, warm & humid High/Low temp precipitation - Weekend - None Today - None	IMPORTANT TELEPHONE CALLS: None

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE: William A Montgomery DATE: 8/9/93

AR300521

EPA * 86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	28	9th	'93
	NO.	1	2	2
	SHEET	2	OF	3

PROJECT NAME PPG HEANNA | PROJECT NO. 515423

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

horizontal lifts and compact by passing the full engine [illegible] this consisting of 2 passes in each of two perpendicular [illegible] instructed crew to keep lifts as specified and compact accordingly periodically inspected clay placement and compaction [illegible] to verify compliance - workers making good progress today. See attach inspection form for more information. Dail Nehl of Pedersen & Pedersen was on site to conduct in place moisture density tests on clay material; supervised standardization of Troxler nuclear gage and performance of 12 test - see attach Field Moisture-Density Test Results sheet for details - note that all tests met the performance requirement by surpassing 90% of the Standard Proctor Maximum Dry Density; all slopes less than 3H:1V were sealed using the CAT CS-553 vibratory smooth drum roller at the end of the work day; 121-45 cy load totaling 1815 cy were received today; Project Total to Date is 9865cy

3) Continued construction of the western surface water collection ditch with excavation of the ditch to the dimensions and alignment shown on the design drawings using the John Deere 750 dozer up to the point where the trucks enter just of the northern lower area; provided direct supervision of excavation and instructed operator as necessary; installed ±9' wide layer of geotextile and placed 6-9" of riprap onto geotextile using the Case 580 Super K backhoe; continued proper overlap of geotextile along ditchline and correct placement and thickness of riprap layer; installed approximately 100 feet

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A. Mattson

SIGNATURE William A. Mattson DATE: 9/1/93

AR300522

IT A 36

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG	DATE	8	04	93
	NO.	1	3	C
	SHEET	3	OF 3	

PROJECT NAME: PPG-HRANICA | PROJECT NO.: 5151.2

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION @ ARC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

4) Collected final fill sample FRN-12A/12B and clay samples CL-3, CL-1A/1B, CL-5, CL-6A/6B and CL-7 and temporarily stored in equipment trailer until scheduled delivery to Triad Engineering of Greenburg, PA; samples will be geotechnically tested as follows: Grain Size Analysis, Atterberg Limits, Soil Classification (Standard Proctor (i.e., 2B, 4B, and 6B)

5) Joseph Brunner Disposal Service of Jeannette, PA was on site to dump 20 cy rolloff of unsuitable fill excavated from around the surface water collection ditch riprap outlet apron, in truck turnaround at top of hill between main access road and western property line

Note surveyor estimated volume of fill on site to be 11,500 cy using the average end area method

A total of 6 ERM-Environmental Inc personnel on site today including

Work Shift - 0600 - 1730
- 1 Site Manager
- 1 Foreman/Operator
- 2 Operators
- 1 Technician
- 1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE: William A Montgomery DATE: 8/9/93

AR300523

32-A-86

Sample Chain of Custody

W.O.No.:	Project Name:
992-47	Hennin Landfill

Sampler: T. Kessler, D. Taylor

ERM T.R. Number	Date	Time	COMP	GRAB	Sample Location	Number of Containers	ASTM D 2216 Moist. Cont.	ASTM D 422 Gradation Sieve	ASTM D 4318 Atterberg Limits	ASTM D 2487 Soil Class.	ASTM D 698 Std. Proct.	Remarks
010611	11	4:15pm		X	STA. 491+00 / 93+25	(1) Syl	X	X	X	X		CL-4A
010612	"	4:20pm		X	STA. 491+00 ; 93+50	(1) Syl				X		CL-4B
010613	"	4:20pm	X		STA. 491+25 ; 93+25	(1) Syl	X	X	X	X		CL-5
010614	"	4:25pm		X	STA. 487+50 ; 93+00	(1) Syl	X	X	X	X		CL-6A
010615	"	4:30pm		X	STA. 487+50 ; 93+50	(1) Syl				X		CL-6B
010616	"	4:30pm		X	STA. 487+90 ; 92+75	(1) Syl	X	X	X	X		CL-7
010617	"	4:35pm		X	STA. 490+60 ; 94+20	(1) Syl	X	X	X	X		FM-12A
010618	9 Aug 93	4:40pm		X	STA. 490+60 ; 94+20	(1) Syl				X		FM-12B
010610	"	4:45pm		X	STA. 490+50 ; 97+00	(1) Syl	X	X	X	X		CL-3

Sample Relinquished	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
CL-3, CL-4A, CL-4B, CL-5, CL-6A, CL-6B, CL-7, FM-12A, FM-12B			TEI	8-10-93	PM	LAB TESTING

PROJECT

COPIES White & Yellow copies accompany sample shipment to laboratory Yellow copy retained by laboratory White copy to be returned to ERM for files Pink copy retained by sampler Gold copy extra copy as ne[illegible] (warehouse)

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location

Hanna Landfill

Carver, PA

2 Sample Concentration

☐ Low Concentration

☐ Medium Concentration

FM-12A
010617

3 Ship to: TRIAD ENG'G

910 ST. Clair Way

P.O. Box 1829

Greensburg PA 15601

Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid

☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler

Project Manager: D. Gurak

Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P. Fisher

(Date Shipped) 10 Aug 93

(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5 gl.
Atterberg Limits " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

8 Sample Location

Sta. 440+60 & 99+20

Date: 9 Aug 93

Time: 4:35 pm

9 Sample Description

☐ Surface Water ☒ Soil

☐ Ground Water ☐ Solid

☐ Leachate ☐ Other:

☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact

☐ Samples at 4 degrees (C)

☒ Samples not leaking

☒ Container numbers match as specified in Item 7

☐ Container tags match Chain of Custody

☐ Cooler received with Custody Seals intact

☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300525

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration: ☐ Low Concentration ☐ Medium Concentration — FM-12B 010618
Project Name/Location: Aronica Landfill, Sarver PA	**3** Ship to: TRIAD ENG. Co. 918 ST. Clair Way, P.O. Box 1024, Greensburg PA 15601, Attn: John Kent
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact: Sampler: T. Kressler; Project Manager: D. Guzik; Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P.F. Sher

(Date Shipped) 10 Aug 93

(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
SVI Proctor ASTM D 698	1	5 gl.

8 Sample Location

STA. 490+60 & 99+20

Date: 9 Aug 93

Time: 4:40 pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300526

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location

Hranica Landfill
Sarver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

CL-3
010610

3 Ship to: Triad Engr.
416 Six Glen Way
P.O. Box 1629
Greensburg PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: D Gwizdak
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) -- — P. Fisher
(Date Shipped) 10 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5gl
Atterberg Limits " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

8 Sample Location

Sta. 490+50 & 497+00

Date: 9 Aug 93
Time: 4:45 p~

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-In.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300527

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 942-97	**2 Sample Concentration** ☐ Low Concentration ☐ Medium Concentration
CL-4A 010611	
Project Name/Location Hromica Landfill Sarver, PA	**3 Ship to:** Triad Eng. Co 918 St. Clair-Wy P.O. Box 1829 Greensburg, PA 15601 Attn: John Kerr
4 Sample Matrix ☐ Liquid ☒ Solid ☐ Other	**5 Sampling Personnel Contact** Sampler: T. Kosla Project Manager: D. Gruzik Phone No.: 772-1022

6 Shipping Information

(Name of Carrier) — P. Fisher
(Date Shipped) 10 Aug 93
(Airbill Number)

8 Sample Location

Stony slope Sta. 491+00 : 93+25

Date: 9 Aug 93
Time: 4:15 p.m.

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist Cont ASTM D 2216	1	5gl
Atterberg Lim " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300528

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

CL-98
010612

1 Project W.O. 992-97

roject Name/Location

Hconiston Landfill
Sarver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

3 Ship to: TRIAD Env. Co.
918 St. Clair Way
P.O. Box 1029
Greensburg PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: R. Cuzik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P.E. Inc
(Date Shipped) 10 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
STD. Prof. ASTM D 698	1	5 gl

8 Sample Location

Steep slope Sta. 99+00 &
93+50

Date: 9 Aug 93
Time: 4:20 pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300529

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Traffic Report

1 Project W.O. 992-97

Project Name/Location

Hanover Landfill
Sarver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

CL-5
010613

3 Ship to: TRIAD ENG. Co.
918 St. Clair Way
P.O. Box 1829
Greensburg PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: D. Cuzik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — Fed Ex
(Date Shipped) 10 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5 gl
Atter Lim " " 4318		
Grain Size " " 422		
Soil Class " " 2487		

8 Sample Location

Comp Sta 491+45 : 93+25
Sta 487+50 : 93+00

Date: 9 Aug 93
Time: 4:20 pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground-Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300530

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Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration	CL-6A 010614
Project Name/Location: Hironimus Landfill, Saxon, PA	☐ Low Concentration ☐ Medium Concentration	**3** Ship to: TRIAD ENG. Co. 918 St. Clair Way, P.O. Box 1829, Greensburg PA 15601
4 Sample Matrix: ☐ Liquid ☐ Solid ☐ Other	**5** Sampling Personnel Contact Sampler: T. Kessler Project Manager: D. Gruzik Phone No. 772-1022	Attn: John Kent

6 Shipping Information
(Name of Carrier) — P.F. Liu
(Date Shipped) 10 Aug 93
(Airbill Number)

8 Sample Location
Sta. 487+50 : 93+50

Date: 9 Aug 93
Time: 4:25 pm

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist Cont. ASTM D 2216	1	5 g
Atter Lim " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

9 Sample Description

☐ Surface Water	☒ Soil
☐ Ground Water	☐ Solid
☐ Leachate	☐ Other:
☐ Sediment	

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☒ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300531

ERM

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Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration	CL-6B 010615
Project Name/Location	☐ Low Concentration	
Hironimus Landfill	☐ Medium Concentration	**3** Ship to: TRIAD ENG.
Sarver, PA	**5** Sampling Personnel Contact	919 ST Clair Way
4 Sample Matrix	Sampler: T Kessler	P.O. Box 1929
☐ Liquid ☒ Solid	Project Manager D. Gvozik	Greensburg PA 15601
☐ Other	Phone No. 772-1022	Attn: John Kent

6 Shipping Information	**7** Specify Type of Analyses, Number of Containers, Approx. Volume		
(Name of Carrier) — P. Fisher	Analyses / Method Requested	No. of Bottles	Total Volume
(Date Shipped) 10 Aug 93	Std Proct. ASTM D 698	1	5 gl
(Airbill Number)			
8 Sample Location			
Sta. 487+50 & 93+50			
Date: 9 Aug 93			
Time: 4:30 pm			

9 Sample Description		**10** Special Handling (e.g. Safety Procedures/Hazardous)
☐ Surface Water	☒ Soil	
☐ Ground Water	☐ Solid	
☐ Leachate	☐ Other:	Additional comments: (Specify data package, rush work, special detection limits, etc.)
☐ Sediment		

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☒ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300532

ERM

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Traffic Report

1 Project W.O. 992-97

Project Name/Location

Hranica Landfill
Sarver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

CL-7
010616

3 Ship to: TRIAD ENG'G.
918 St. Clair Way
P.O. Box 1824
Greensburg PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: D. Gvozik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P. Fisher
(Date Shipped) 10 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5 gl
Atterberg Lim. " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

8 Sample Location

Sta. 907+90 ; 92+75

Date: 9 Aug 93
Time: 4:30 pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300533

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. —
Borrow Area Snyder Associated Companies, Inc.

Date 8/9/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825 B Sheepsfoot Compactor and CS-553 Vibratory Smooth Drum Roller
Soil Description Gray clay
Weather Partly cloudy, warm and humid High - 87°F
Volume and Location of Material Placed During Shift 1815 cubic yards placed on steep slope, hilltop adjacent ash bunker cap and northern lower areas

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/9/93

Project Name PPG-HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-35	9420	48920	12"	114.6	102.8	10.5	-6.5	CL
CBL-36	9420	48920	6"	113.3	101.6	11.0	-6.0	CL
CBL-37	9430	48830	12"	114.8	103.0	10.7	-6.3	CL
CBL-38	9430	48830	6"	115.8	103.9	11.4	-5.6	CL
CBL-39	9350	48870	12"	112.8	101.2	11.9	-5.1	CL
CBL-40	9350	48870	6"	113.5	101.8	11.5	-5.5	CL
CBL-41	9260	49170	12"	103.0	92.4	10.3	-6.7	CL
CBL-42	9300	49110	12"	105.5	94.6	11.6	-5.4	CL
CBL-43	9300	49110	6"	101.0	90.6	13.0	-4.0	CL
CBL-44	9370	49130	12"	102.8	92.3	12.3	-4.7	CL
CBL-45	9350	49040	12"	104.0	93.3	12.5	-4.5	CL
CBL-46	9350	49040	6"	102.2	91.7	12.5	-4.5	CL

PT/11-92/WP/313108:Form5(Figure 5 Moisture-Density, Field Form)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-9-93

Report No.: 16 PAGE 1 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 593 DS 3144

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 35	CBL 36	CBL 37	CBL 38
Location	N 9420 N 48920	N 9420 E 48920	N 9430 E 48830	N 9430 E 48830
Density Count (DC)	531	2541	524	2359
Moisture Count (MC)	137	141	139	148
Wet Density (WD)	126.7	125.8	127.0	129.0
Dry Density (DD)	114.6	113.3	114.8	115.8
Moisture (M)	12.1	12.5	12.3	13.2
Percent Moisture (%M)	10.5	11.0	10.7	11.4
Percent Compaction (DD/Y)	102.8	101.6	103.0	103.9
Pass/Fail (P or F)	P	P	P	P
	12"	6"	12"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Signature: Paul J Neff 058155

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-9-93

Report No.: 16 PAGE 2 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 593 DS 3144

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 39	CBL 40	CBL 41	CBL 42
Location	N 9350 E 48870	N 9350 E 48870	N 9260 E 49170	N 9300 E 49110
Density Count (DC)	538	2498	846	725
Moisture Count (MC)	150	146	123	139
Wet Density (WD)	126.2	126.5	113.6	117.8
Dry Density (DD)	112.8	113.5	103.0	105.5
Moisture (M)	13.4	13.0	10.6	12.3
Percent Moisture (%M)	11.9	11.5	10.3	11.6
Percent Compaction (DD/Y)	101.2	101.8	92.4	94.6
Pass/Fail (P or F)	P	P	P	P
	12"	6"	12"	12"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058455 (Cert. #)

Signature _____ 8-9-93 (Date)

AR300537

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-9-93

Report No.: 16 PAGE 3 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17757 Standard Counts: MS 593 DS 3144

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 43	CBL 44	CBL 45	CBL 46
Location	N9300 E49110	N9370 E49130	N9350 E49040	N9350 E49040
Density Count (DC)	3332	786	744	3268
Moisture Count (MC)	147	143	146	144
Wet Density (WD)	114.1	115.5	117.0	115.0
Dry Density (DD)	101.0	102.8	104.0	102.2
Moisture (M)	13.1	12.7	13.0	12.8
Percent Moisture (%M)	13.0	12.3	12.5	12.5
Percent Compaction (DD/Y)	90.6	92.3	93.3	91.7
Pass/Fail (P or F)	P	P	P	P
	6"	12"	12"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-9-93 (Date)

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	10	93
	NO.	1	3	1
	SHEET	1	OF	4

OJECT NAME FPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; site received approximately 0.3" of rainfall last night which was much needed to facilitate clay placement and help control dust generated as a result of truck and heavy equipment traffic, clay is coming into site at around 13-14% moisture (i.e. -3-4% of optimum) therefore additional water is a benefit; note however that no moisture performance requirements are specified for this project other than not allowing clay to become excessively dry or desiccated, discuss project status with ERM-Envirocleen Site Manager, Tony Kessler and confirmed that surveyors would be on site to reestablish grid and update clay placement status; periodically inspect field operation during the day and observe ERM-Envirocleen personnel and or subcontractor performing the following work activities:

1) Continued implementation of traffic and dust control program with positioning of flagman (Pete Fisher) at intersection of Hranica Drive and Ekastown Road; flagman responsibilities include setting and retrieving traffic warning signs each day at their designated locations along Ekastown Road, directing traffic as necessary, signing and retaining clay material bills from truck drivers, reporting residential concerns to project staff, monitoring truck traffic (speed control) and dust conditions on Hranica Drive, and performing dust control measure which today included application of water along the residential segment of Hranica Drive using the Hertz 500 gal/w water tank by the ERM-Envirocleen Chevy pick-up followed by manual application of calcium chloride using a fertilizer/seed spreader; this one-two approach seems to produce good result by eliminating nearly all

VISITORS ON SITE:
Dave McCue - Sales Representative of Snyder Associated Companies, Inc.

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
Instructed ERM-Envirocleen personnel to remove deficient segment of geotextile and riprap and reinstalled as originally instructed. Completed as required

WEATHER CONDITIONS: Site Conditions - Dry
Partly cloudy and mild; foggy in AM
High/Low Temp - 79/55°F
Precipitation - None

IMPORTANT TELEPHONE CALLS:
Mark Weisberg - IT Corporation - Check on status of preparation of responses to agency comments on Groundwater Verification Study and its revision - should have draft by 8/11

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE: 8/10/93

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	10	93
	NO.	1	3	2
	SHEET	2	OF	4

FIELD ACTIVITY DAILY LOG

PROJECT NAME	TPG - HRANICA	PROJECT NO.	515438

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

generation of dust

2) Continued real-time dust and particulate monitoring downwind of designated work areas - for additional information see the daily monitoring logs filed in the field office trailer

3) Continued construction of the western surface water collection ditch and removal of HDPE pipe installed across channel and reconstruction of ditch to dimensions and lines specified in the remedial design using the 4" tooth Deere 750B dozer - instructed operator of ditch requirements - triangular channel following main site access road with the centerline approximately 2-3' below the edge of road; provided direct supervision and instructed as to rework areas during construction; once ditchline was completed assisted in placement of 9' wide layer of geotextile along length of ditch and observed placement of 6-9" of riprap using the Case 580 Super K backhoe; completed approximately 250' of ditch and placed riprap up to road surface over nearly 30' to provide access for trucks to lower northern portions of protective cover system - riprap will be removed at conclusion of work in these areas and ditch will conform to specified dimensions as long as geotextile is not damaged; installed ditch to date is of acceptable quality; note that initially instructed ESN-Environclean to remove final segment of geotextile which was deficient in width (6') - work was removed and corrected after discussing situation with site Manager Tony Kessler

4) Continued construction of clay barrier layer as part of protective

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A Montgomery DATE: 8/10/93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	08	15	93
NO.	1	3	2
SHEET	2	OF	4

OJECT NAME PPG-HRANKA | PROJECT NO. 515[illegible]

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

cover system with placement and compaction of [illegible] clay from Spidle Associated Companies, Inc in Kittanning, PA; clay [illegible] along entire slope and on all lower northern [illegible] of the protective cover system. The CAT 825B sheepsfoot compactor is being used to spread the clay in loose, horizontal lifts not more than 8" thick over the lower gentle sloped portions and compact a minimum of 4 passes consisting of two passes in each of two principal directions; the John Deere 750B dozer is utilized to spread lifts, clay stockpiles "staggered" dumped along the slope by the tandem dump trucks in loose lifts not exceeding 8" thick and slowly tracking in material to achieve desired compaction; the CAT CS-553 vibratory smooth drum roller is also as a means of compaction as well at the end of work day to cram and seal all areas as required. Inspection operations randomly to verify implementation of proper compaction techniques, consistency of clay material being put on site, coverage of areas, scarification between lifts, degree of clods which at times are excessive but do readily break down with compaction effort and especially if lightly wetted, and compliance with lift requirements. For further inspection information see the attached form; Paul Neff of Pedersen & Pedersen on site to conduct in-place moisture/density testing - supervise calibration and supervise performance of 14 tests at various locations (see attached Field Test Results Sheet for details) at 6 and 12" depth to verify that performance requirement has been achieved - each test easily surpassed 90% of the Standard Proctor Maximum Dry Density; note that tests are being conducted at

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/10/93

4R300541

IT A 86

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	10	93
	NO.	1	3	1
	SHEET	4	OF	

FIELD ACTIVITY DAILY LOG

PROJECT NAME	PPG - HEANICA	PROJECT NO.	5151.2

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION SAMPLE

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

a Frequency higher than that required (1 per 500 cy) to verify compliance a total of 97 15 cubic yard loads were required for a total of 1305 cy; Project total to date is 10,170 cy

5) Surveying subcontractor, Redesign & Redesign on site to reestablish entire 50'X50' grid over limits of protective cover system. Each grid node is field referenced with a wooden lath denoted by the coordinates and clay placement states (fill 2' or less) to provide guidance during construction; request surveyor provide subgrade survey drawing for review

6) Transported fill and clay sample collected yesterday by hand delivery via truck to Triad Engineering in Greensburg, PA for specified geotechnical testing including Grain Size Analysis, Atterberg Limits, Soil Classification, Moisture Content which are required once every 1000 cy and the Standard Proctor which only required once every 2000 cy
7) Collected clay sample CL-8A/8B - see attached documentation for details
8) Maintenance of haul road with fine grading and placement of gravel over geotextile

A total of 6 ERM-Environdem, Inc. personnel on site including:

Work Shift 0600-1730

1 Site Manager
1 Foreman/Operator
2 Operators
1 Technician
1 Labor

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE: 8/10/93

AR300542

IT-A 7-86

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration	CL-9A 010607
Project Name/Location: Horsham Landfill, Sarver, PA	☐ Low Concentration ☐ Medium Concentration	**3** Ship to: TRIAD ENG Co. 918 St. Clair Way P.O. Box 1829 Greensburg, PA 15601 Attn: John Kent
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact Sampler: T. Kessler Project Manager: R. Buzik Phone No. 772-1022	
6 Shipping Information (Name of Carrier) P. Fisher (Date Shipped) 10 Aug 97 (Airbill Number)	**7** Specify Type of Analyses, Number of Containers, Approx. Volume	
8 Sample Location: STA. 95+50 : 490+50	**9** Sample Description ☐ Surface Water ☒ Soil ☐ Ground Water ☐ Solid ☐ Leachate ☐ Other: ☐ Sediment	**10** Special Handling (e.g. Safety Procedures/Hazardous)
Date: 10 Aug 97 Time: 3:40 pm		

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5 L
Atterberg Limits " " 4318		
Grain Size " " 422		
Sieve Clay " " 2487		

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-In.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☐ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300543

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration	CL-BB 010608
Project Name/Location	☐ Low Concentration	
Monroe Landfill	☐ Medium Concentration	**3** Ship to: TRIAD Eng Gr
Service #4	**5** Sampling Personnel Contact	918 St Clair Way
4 Sample Matrix	Sampler: T. Kessler	P.O. Box 1029
☐ Liquid ☑ Solid	Project Manager: D Gwiek	Greensburg, PA 15601
☐ Other	Phone No.: 772-1022	Attn: John Kent

6 Shipping Information	**7** Specify Type of Analyses, Number of Containers, Approx. Volume		
(Name of Carrier) — P. Fisher	Analyses / Method Requested	No. of Bottles	Total Volume
(Date Shipped) 12 Aug 93	SA Pro Tor Asm 0 698	1	5gl
(Airbill Number)			
8 Sample Location			
STA. 490+50 ; 95+50			
Date: 10 Aug 93			
Time: 3:45 pm			

9 Sample Description		**10** Special Handling (e.g. Safety Procedures/Hazardous)
☐ Surface Water	☑ Soil	
☐ Ground Water	☐ Solid	
☐ Leachate	☐ Other:	Additional comments: (Specify data package, rush work, special detection limits, etc.)
☐ Sediment		

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact	Log-in Person's Signature
☐ Samples at 4 degrees (C)	
☒ Samples not leaking	
☒ Container numbers match as specified in Item 7	
☒ Container tags match Chain of Custody	
☐ Cooler received with Custody Seals intact	☐ Samples contained within plastic bags

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANKA
Project No. 515428
Unit No. –
Borrow Area Snyder Associated Companies, Inc

Date 8/10/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825 B Sheepsfoot Compactor and CS-553 Vibrating Smooth Drum Roller
Soil Description Gray clay USCS Classification - CL
Weather Hazy, hot and humid High - 87°F
Volume and Location of Material Placed During Shift 1305 cubic yards along entire slope and on all northern lower portions of protective cover system.

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the ~~fill~~ clay free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the ~~fill~~ clay free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/10/93

Project Name PPG-HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-47	9230	48870	12"	112.8	101.2	12.6	-4.4	CL
CBL-48	9230	48870	6"	112.1	100.5	13.0	-4.0	CL
CBL-49	9290	48920	12"	109.3	98.0	12.8	-4.2	CL
CBL-50	9290	48820	6"	113.4	101.7	12.0	-5.0	CL
CBL-51	9360	-	6"	105.8	94.9	13.5	-3.5	CL
CBL-52	9500	-	6"	102.6	92.0	13.4	-3.6	CL
CBL-53	-	-	6"	104.9	94.1	12.7	-4.3	CL
CBL-54	-	-	6"	103.4	92.7	12.6	-4.4	CL
CBL-55	-	-	6"	109.2	97.9	12.6	-4.4	CL
CBL-56	9700	49100	12"	107.0	95.9	11.6	-5.4	CL
CBL-57	9700	49100	6"	106.5	95.6	11.3	-5.7	CL
CBL-58	9850	49130	12"	111.9	100.4	14.0	-3.0	CL
CBL-59	9850	49130	6"	113.7	102.0	14.0	-3.0	CL
CBL-60	9760	49020	6"	117.0	104.9	12.7	-4.3	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-10-93

Report No.: 17 PAGE 1 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 5360 DS 3182

Proctor Values: ___ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 47	CBL 48	CBL 49	CBL 50
Location	N 9230 E 48870	N 9230 E 48870	N 9290 E 48820	N 9290 E 48820
Density Count (DC)	529	2513	602	2499
Moisture Count (MC)	143	146	141	137
Wet Density (WD)	127.0	126.7	123.3	127.0
Dry Density (DD)	112.8	112.1	109.3	113.4
Moisture (M)	14.3	14.6	14.0	13.6
Percent Moisture (%M)	12.6	13.0	12.8	12.0
Percent Compaction (DD/Y)	101.2	100.5	98.0	101.7
Pass/Fail (P or F)	P	P	P	P
	12"	6"	12"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058154 (Cert. #)

Paul J Neff (Signature) 8-10-93 (Date)

AR300547

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-10-93

Report No.: 17 PAGE 2 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 536 DS 3182

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 51	CBL 52	CBL 53	CBL 54
Location	N 9360 E	N 9500	N	MIDDLE 730
Density Count (DC)	2929	3197	3064	3200
Moisture Count (MC)	143	139	135	132
Wet Density (WD)	120.1	116.4	118.2	116.4
Dry Density (DD)	105.8	102.6	104.9	103.4
Moisture (M)	14.3	13.8	13.3	13.0
Percent Moisture (%M)	13.5	13.4	12.7	12.6
Percent Compaction (DD/Y)	94.9	92.0	94.1	92.7
Pass/Fail (P or F)	P	P	P	P
	6"	6"	6"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-10-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-10-93

Report No.: 17 PAGE 3 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 536 DS 3182

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 55	CBL 56	CBL 57	CBL 58
Location	N E	N 9700 E 49100	N 9700 E 49100	N 9850 E 49130
Density Count (DC)	2741	693	3038	519
Moisture Count (MC)	139	127	124	155
Wet Density (WD)	123.0	119.4	118.6	127.5
Dry Density (DD)	109.2	107.0	106.5	111.9
Moisture (M)	13.8	12.4	12.1	15.6
Percent Moisture (%M)	12.6	11.6	11.3	14.0
Percent Compaction (DD/Y)	97.9	95.9	95.6	100.4
Pass/Fail (P or F)	P	P	P	P
	6"	12" [redacted]	6"	12"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-10-93 (Date)

AR300549

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HANIGAN LANDFILL

Project #: 93-003

Date: 8-10-93

Report No.: 17 PAGE 4 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 536 DS 3182

Proctor Values: ____ modified ____ standard Opt. Moisture _____ density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 59	CBL 60		
Location	N 9850 E 49130	N 9760 E 49020		
Density Count (DC)	2344	2235		
Moisture Count (MC)	158	148		
Wet Density (WD)	129.7	131.8		
Dry Density (DD)	113.7	117.0		
Moisture (M)	16.0	14.8		
Percent Moisture (%M)	14.0	12.7		
Percent Compaction (DD/Y)	102.0	104.9		
Pass/Fail (P or F)	P	P		
	6"	6"		

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-10-93 (Date)

AR300550

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	11	93
	NO.	1	3	6
	SHEET	2	OF	3

FIELD ACTIVITY DAILY LOG

OJECT NAME PPG-HRANICA | PROJECT NO. 515172

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

used to spread the piles in loose horizontal lifts 3' thick or less over slope and track in slowly to achieve proper level of compaction, [illegible] to taper lifts from top of slope back to protective cover system boundary where clay will ultimately be 2' thick to provide [illegible] which ties into existing grades at the toe and conserve clay; the [illegible] 825B sheepsfoot compactor is being utilized to both spread the [illegible] in thin loose horizontal lifts no more than 8" thick and to compact the clay on the lower northern [illegible] where the slope are gentle; the compaction consists of 4 passes with 2 passes in each of two perpendicular [illegible] periodicall inspect placement and compaction performance. [illegible] attached Clay Barrier Layer Construction Form to inspection details. Paul Neff, Troxler nuclear gage technician for Pedersen & Pedersen of Valencia, PA on site to conduct in-place moisture [illegible] tests of completed portions of clay barrier layer; instruct Paul of areas to be tested and supervise instrument calibration as well as testing procedure; a total of 7 in-place moisture-density tests were conducted with each test easily surpassing the compaction performance requirement of 90% of the Standard Proctor Maximum Dry Density; only passing tests are recorded however no test failed the criteria. received 104 - 15cy load for a daily total of 1560cy, Project Total to Date is 11730 cubic yards; Paul also completed [illegible]

3) Transferring stockpile of unsuitable fill located within boundaries of protective cover system resulting from western riprap outlet excavation to designated disposal area within truck turnaround at top of hill between work site access road and western property line; Case 580 Super K

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/11/93

EQTA - 86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 11 93 | NO. 1 3 7 | SHEET 3 OF 3

PROJECT NAME PPG-HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

backhoe to excavate and transport soil. also transferred broken sections of concrete pad discovered along the northern perimeter of the protective cover system - it is believed this pad served as the decontamination pad during the removal action in 1984; also placed small amount of logs, etc. from clearing, grubbing + chipping operations which were removed during initial grading

Maintenance of Hranica Drive and main access road - fine grading + placement of No. 57 gravel and riprap at problem areas using the Case 580 Super K backhoe

ERM-Environcon, Inc. Site Manager Tony Kessler collected representative composite samples of waste materials in drum overpacks, and shipped to PPG Industries, Inc for waste characterization; two of the drums contain paint related material while a third drum was coated with a hard resin type of material; drum continue to be staged on site and covered with plastic

9) Collected clay samples CL-9 and CL-10A/10B from designated locations, and temporarily stored in equipment trailer for transport to Triad Engineering for completion of the Toxicity Characteristic Leaching Procedure (TCLP) analysis. Samples scheduled for transport on 8/12/93 - See attached documentation for completion of the TCLP

6) Removed damaged silt fence along eastern alignment caused by poor equipment operation (Bill Varos) conveyed that these areas must be corrected; also removed silt fence below equipment decon pad and along top of spring area since these alignments were installed in addition to that required

Shift 0600-1730

7) Daily real-time monitoring of work areas for dust + particulate

8) Repair of CAT CS-553 vibratory smooth drum roller which is leaking fluid

A total of 6 ERM-Environcon, Inc personnel on site today including: 1 Site Manager / 1 Foreman/Operator (½ Day) / 2 Operators / 1 Technician / 1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 8/11/93

The ERM Group

Sample Chain of Custody

W.O. No.: 992-97 | Project Name: Hermiston Landfill

Sampler: T. Klessig

ERM T.R. Number	Date	Time	COMP	GRAB	Sample Location	Number of Containers	ASTM D 2216 Moist. Cont.	ASTM D 4318 Atterberg Limits	ASTM D 422 Sieve Size	ASTM D 2487 Soil Class.	ASTM D 698 SP Proc.	Remarks
010607	10 Aug 93	3:40 pm		X	STA. 490+50 ; 95+50	(1) 5gl	X	X	X	X		CL-8A
010608	10 Aug 93	2:45 pm		X	STA. 490+50 ; 95+50	(1) 5gl					X	CL-8B
010609	11 Aug 93	4:20 pm		X	STA. 490+50 ; 96+50	(1) 5gl	X	X	X	X		CL-9
010675	11 Aug 93	4:25 pm		X	STA. 491+00 ; 94+00	(1) 5gl	X	X	X	X		CL-10A
010676	11 Aug 93	4:30 pm		X	STA. 491+00 ; 94+00	(1) 5gl					X	CL-10B

ERM-0055

Sample Relinquished	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
CL-8A (10607)			TEI	8-12-93	PM	LAB TESTING
CL-8B (10608)			TEI	8-12-93	PM	LAB TESTING
CL-9 (10609)			TEI	8-12-93	PM	LAB TESTING
CL-10A (10675)			TEI	8-12-93	PM	LAB TESTING
CL-10B (10676)			TEI	8-12-93	PM	LAB TESTING

COPIES White & Yellow copies accompany sample shipment to laboratory Yellow copy retained by laboratory White copy to be returned to ERM for files Pink copy retained by sampler Gold copy extra copy as needed (warehouse)

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location

Hronica Landfill
Seven, OA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

CL-9
010609

3 Ship to: TRIAD ENG'G
918 State Chip Way
P.O. Box 1829
Greensburg PA 15601
Attn: John Kent

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: D. Guzik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — Pony Express
(Date Shipped) 12 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist Cont. ASTM D 2216	1	5 gl.
Atterberg Limits - 4318		
Grain Size - 422		
Soil Class. - 2487		

8 Sample Location

SW. 490+50 : 96+50

Date: 11 Aug 93
Time: 4:20 pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300554

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

CL-10A
010675

1 Project W.O. 992-97

Project Name/Location

Hanna Landfill
Carver, PA

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

3 Ship to: TRIAD ENG'G.

918 St. Clair Way
P.O. Box 1829
Greensburg, PA 15601
Attn: Jon Kent

4 Sample Matrix

☐ Liquid ☑ Solid
☐ Other

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: R. Guzik
Phone No. 772-1022

6 Shipping Information

(Name of Carrier) — P.F.Inc
(Date Shipped) 12 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5gl.
Atter. Limits 4318		
Grain Size 422		
Soil Loss 2487		

8 Sample Location

Sta 99+00 : 99+00

Date: 11 Aug 93
Time: 4:25 pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300555

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97	**2 Sample Concentration** ☐ Low Concentration ☐ Medium Concentration
010676	
Project Name/Location Hromin Landfill Sinn, PA	**3 Ship to:** TRIAD ENG'G 210 ST Clair Way P.O. Box 1929 Greensburg PA 15601 Attn: Jula Kent
4 Sample Matrix ☐ Liquid ☒ Solid ☐ Other	**5 Sampling Personnel Contact** Sampler: T. Kessler Project Manager D. Guzik Phone No. 772-1022
6 Shipping Information (Name of Carrier) — P. Fisher (Date Shipped) 12 Aug 93 (Airbill Number)	**7 Specify Type of Analyses, Number of Containers, Approx. Volume**

Analyses / Method Requested	No. of Bottles	Total Volume
Std. Prot. ASTM D 698	1	5 gl.

8 Sample Location

STA 99+00 & 99+00

Date: 11 Aug 93
Time: 4:30pm

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-In.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. -
Borrow Area Snyder Associated Companies, Inc

Date 8/11/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor and CS-553 Vibratory Smooth Drum Roller
Soil Description Gray Clay USCS Classification - CL
Weather Partly cloudy and warm High 86°F
Volume and Location of Material Placed During Shift 1560 cubic yards placed on steep slope (eastern) and entire northern lower portion of protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/11/93

Project Name PPG-HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc.

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East	Depth					
CBL-61	9430	48840	6"	116.5	104.5	9.0	-8.0	CL
CBL-62	9340	49055	6"	104.0	93.2	11.4	-5.6	CL
CBL-63	9345	49135	6"	101.6	91.1	13.2	-3.8	CL
CBL-64	9520	48960	6"	104.1	93.4	11.2	-5.8	CL
CBL-65	9590	48960	6"	101.7	91.2	10.8	-6.2	CL
CBL-66	9750	48960	6"	103.8	93.1	12.0	-5.0	CL
CBL-67	9820	48975	6"	105.6	94.7	11.4	-5.6	CL
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-11-93

Report No.: 18 PAGE 1 OF 2

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 14759 Standard Counts: MS 589 DS 3171

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 61	CBL 62	CBL 63	CBL 64
Location	N 9430 E 48840	N 9340 E 49055	N 9345 E 49135	N 9520 E 48960
Density Count (DC)	2499	3235	3292	3239
Moisture Count (MC)	121	134	149	132
Wet Density (WD)	127.0	115.8	115.0	115.8
Dry Density (DD)	116.5	104.0	101.6	104.1
Moisture (M)	10.5	11.9	13.4	11.6
Percent Moisture (%M)	9.0	11.4	13.2	11.2
Percent Compaction (DD/Y)	104.5	93.2	91.1	93.4
Pass/Fail (P or F)	P	P	P	P
	6"	6"	6"	6"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-11-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-11-93

Report No.: 18 PAGE 2 OF 2

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 589 DS 3171

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 65	CBL 66	CBL 67	
Location	N 9590 E 48960	N 9750 E 48960	N 9820 E 48975	
Density Count (DC)	3483	3198	3098	
Moisture Count (MC)	126	140	136	
Wet Density (WD)	112.7	116.3	117.6	
Dry Density (DD)	101.7	103.8	105.6	
Moisture (M)	11.0	12.5	12.1	
Percent Moisture (%M)	10.8	12.0	11.4	
Percent Compaction (DD/Y)	91.2	93.1	94.7	
Pass/Fail (P or F)	P	P	P	
	6"	6"	6"	

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-11-93

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	05	12	92
	NO.	1	3	8
	SHEET		OF	4

FIELD ACTIVITY DAILY LOG

OJECT NAME	PPG - HRANICA	PROJECT NO.	515423

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect site operations - ERM - Environmental personnel performing the following work activities:

1) Continued daily traffic and dust control programs consisting of positioning at Flagman at the end of Hranica Drive to sign in visitor since this is the first point of contact direct traffic, as needed, relay concerns/complaints of residents to project staff via two-way radio, sign and note clay material bill from truckers to promote smooth site operations, monitoring truck traffic and dust conditions on Hranica Drive and convey information to project staff upon request; note that Flagman also sets traffic warning signs along Ekastown Road which seem to cause the motorists to drive cautiously and carefully through intersection; Flagman also implements dust control measures by applying water to residential segment of Hranica Drive using Hertz 500 gallon water tank pulled by Chevrolet pick-up; note that previous night's rain ended dust control throughout morning but by noon road needed water

2) Continued construction of clay barrier layer of protective cover system with placement and compaction of gray clay from Snyder Associated Companies, Inc in Kittanning, PA a 3H:1V (western) slope and lower northern portions; the John Deere 750B dozer was utilized to spread the 15 cy

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
Ann Estabrook - CH2M-Hill (USEPA Oversight) Tom Ebbert, Mitch McGee and Mark Terril of PPG Industries, Inc	None
WEATHER CONDITIONS: Site Conditions - Damp Hazy, hot and humid High/Low Temp - 87/63°F Precipitation - None	IMPORTANT TELEPHONE CALLS: Mark Weisberg IT Corporation - Discuss itemized responses to agency comments on Groundwater Verification Study received via fax

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/12/93

4R300567

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 12 93 | NO. 1 3 9 | SHEET 2 OF 4

PROJECT NAME PPG - HRA NICA | PROJECT NO. 515426

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

piles "stagger" dumped by the tandem dumptrucks along the toe and top of the slope; loose, horizontal lifts not more than 8" thick were placed and compacted by slowly tracking in parallel to slope; a Caterpillar 825B Sheepsfoot Compactor is utilized to place loose lift 8" thick or less on the designated areas of the lower protective cover system and compacted by passing a minimum of 4 times consisting of 2 passes in each of two perpendicular directions; performed random inspections to verify compliance in regard to proper lift thicknesses, material consistency, compaction method, scarifying between lifts, coverage of specified area, and clod minimization - for additional inspection items see the attached Clay Barrier Layer Construction Inspection Form; Paul Nett, Troxler nuclear gage technician for Pedersen & Pedersen on site early to conduct in-place moisture/density testing of completed areas - request Paul perform tests at various locations over entire site at 6" depth and test every other location at 12" depth also; 17 of the 19 locations tested surpassed the compaction performance requirement of 90% Standard Proctor Maximum Dry Density - see the attached Field Moisture-Density Results sheet for details on location and test data; the two locations which failed were on the slope which required additional compaction effort as discussed with operator Wayne Fincham - results were within 88-90 pct range; a total of 111 - 15 cy load were received for a daily grand total of 1665 cy

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 8/12/93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 12 93 | NO. 1 4 0 | SHEET 3 OF 4

PROJECT NAME PPG- HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

note that all areas were crowned and graded as appropriate using the CAT CS-553 vibratory smooth drum roller; the smooth drum was also used as another means of compaction on the the flat and gentle sloped areas

3) Maintenance of Hranica Drive and main site access road by fine grading and placing No. 57 stone as need using the Case 580 Super K backhoe; also utilizing CAT CS-553 vibratory smooth drum roller to compact haul roads

Note instructed dozer operator Wayne Finchum to cut top of 3H:1V slope area adjacent monitoring well cluster 3 approximately 6-12" to allow for placement of the 2' clay barrier layer and push fill material onto road where it is low

4) Held 4th weekly Progress Meeting; ERM-Envirocon, Inc Site Manager Tony Kessler conducted sitewalk and informal meeting following set agenda; meeting attendees included US Environmental Protection Agency Oversight Representative, Ann Etebrook of CH2M-Hill, PRP Representative, Tom Ebbert of PPG Industries, Inc. and Mitch McGee and Mark Terril also. of PPG; major concern of Tom Ebbert is potential to use excess clay to construct clay barrier layer on steep slope; I explained that 2' clay barrier layer boundary crosses slope diagonally and remainder of slope ties into existing grade at 2H:1V down to the toe; therefore lifts of clay are being

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of	See sheet 1 of
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of	See sheet 1 of

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery

AR300563

DATE: 8/12/93

32-A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG	DATE	08	12	93
	NO.	1	4	1
	SHEET	4	OF	4

PROJECT NAME: PPG-HRANICA | PROJECT NO.: 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

tapered off as placement continues down the slope; Ann Estebrook reviewed previous week's progress and stated that the she did not think any concerns - everything is in good order; for details on the 9th weekly Progress Meeting see the attached minutes; Project Manager Dave Gurik absent due to other project

5) Transported clay samples CL-8A/8B, CL-9, and CL-10A/10B by hand delivering to Triad Engineering in Greensburg, PA which is approximately 1 hour 15 minutes from; accompanied Pete Fisher to laboratory to inspect facility and meet John Kent, lab contact; dropped off sample for specified geotechnical tests - laboratory is a ranch house with primary operations occurring in the garage; discussed capabilities with John Kent and noted that permeability tests must be shipped to another lab - need to order six 2'6" Shelby tubes to collects samples accordingly

Returned to Monroeville (Exit 6) to take care of work in office

A total of 5 ERM-Enviroclean Inc personnel on site today including:

Shift 0600-1730

1 Site Manager
2 Operators
1 Technician
1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 4	See sheet 1 of 4
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 4	See sheet 1 of 4

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE: William A. Montgomery

DATE: 8/12/93

Received August 17, 1993

MEMORANDUM
ERM-ENVIROCLEAN, INC.

To: Tom Ebbert, PPG

From: Dave Guzik DAG

Date: 15 August 1993

Regarding: Hranica Weekly Project Status Report and Meeting Minutes

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Meeting: Meeting No. 9
12 August 1993, 9:00AM

Attendees:

Tom Ebbert (PPG)	Anne Estabrook (CH_2M Hill)
Mitch Magee (PPG)	Tony Kessler (ERM)
Mark Terrill (PPG)	Bill Montgomery (IT)

Review and approval of the minutes of the previous meeting.

- No changes were noted regarding the minutes of the previous meeting.

Review of action items from previous meeting.

- The former concrete decontamination pad, and buried debris consisting primarily of scrap metal, identified during installation of the west stormwater collection ditch has been stockpiled in the previously excavated truck turnaround. This material will be covered over in this location with native fill at the completion of the project.
- ERM has commenced daily crown and sealing of the protective clay layer using a smooth drum roller.
- Installation of the west stormwater collection ditch is ongoing.

Field observations, problems, conflicts.

- ERM will continue relations with the public and neighbors (e.g. dust control, prevention of speeding, and access issues). Watering and calcium application is continuing along Hranica Drive.
- ERM will continue with the installation of the west stormwater collection ditch.

Problems which may impede construction schedule and proposed corrective action.

- None identified.

Review of schedule and status of work.

- Work on Saturdays will continue at the discretion of ERM.

Work or testing accomplished since last meeting.

- ERM is continuing with the placement of the clay protective layer.
- ERM has commenced the clay subgrade survey.
- Compaction tests and the collection of QA/QC field verification samples have been performed as required.
- Installation of the west stormwater collection ditch is continuing.
- ERM collected samples of the previously identified drums at the site for analysis by PPG.
- The former concrete decontamination pad, and buried debris consisting primarily of scrap metal, identified during installation of the west stormwater collection ditch has been stockpiled in the previously excavated truck turnaround. This material will be considered unsuitable fill and will be covered over in this location with native fill at the completion of the project.
- Hand placement of clay around the monitoring wells has been performed.

Rework items identified/completed since last meeting.

- Approximately 40 linear feet of geotextile fabric was removed from the west stormwater collection ditch and replaced due to improper width.
- All damaged silt fence has been repaired.

Corrective measures and procedures to regain progress in accordance with project schedule.

- A 6-day per week work schedule will be maintained at the discretion of ERM.

Review of construction schedule including testing requirements and coordination requirements for the next two weeks.

- Clay placement activities will continue.
- The placement of the soil cover layer along the southwestern property boundary will be completed to facilitate completion of the perimeter fence.
- The performance of compaction tests and the collection of QA/QC samples will continue.

- ERM will submit a revised RA Work Schedule at the 19 August 1993 weekly meeting.

- Completion of the west stormwater collection ditch is expected.

- The closure of 4 inactive monitoring wells on the Pajer property is expected to be completed.

Revisions of schedule, if required.

- None required.

Review of submittal schedules; expedite as required.

- None at this time.

Maintenance of quality and safety standards.

- QA/QC verification testing and inspections will continue

Pending changes or substitutions.

- Not applicable.

Other business.

- PADER has verbally approved the Hranica Drive stream crossings to remain in place on a permanent basis. Bob Kimball of PADER will be issuing a letter of approval shortly.

cc: Gary Crouth (ALCOA)
Garth Connor (USEPA)
Robert Kimball (PADER)
William Montgomery (IT)
Elizabeth Mikulis (CH_2M Hill)
Anne Estabrook (CH_2M Hill)
Stan Porfido
Mike Coia
Tony Kessler

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG HRANICA
Project No. 513428
Unit No. –
Borrow Area Snyder Associated Companies, Inc

Date 8/12/93
Inspected by William A Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor and CS-553 Vibratory Smooth Drum Roller
Soil Description Gray Clay USCS Classification – CL
Weather Hazy hot and humid High – 87°F
Volume and Location of Material Placed During Shift 1665 cubic yards placed on 3H:1V slope and on northern lower portions of protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/12/93

Project Name PPG-HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth Elevation	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-68	9080	48765	12"	114.2	102.5	14.0	-3.0	CL
CBL-69	9080	48765	6"	116.3	104.3	14.4	-2.6	CL
CBL-70	9270	48830	12"	112.0	100.4	12.9	-4.1	CL
CBL-71	9430	48845	12"	110.6	99.2	12.4	-4.6	CL
CBL-72	9430	48845	6"	106.2	95.3	12.7	-4.3	CL
CBL-73	9300	49070	12"	101.1	90.7	15.1	-1.9	CL
CBL-74	9300	49160	12"	103.7	93.0	15.7	-1.3	CL
CBL-75	9300	49160	6"	102.4	91.9	16.3	-0.7	CL
CBL-76	9335	49175	12"	103.6	92.9	14.7	-2.3	CL
CBL-77	9520	49110	6"	104.3	93.6	12.6	-4.4	CL
CBL-78	9735	49080	12"	113.2	101.6	13.2	-3.8	CL
CBL-79	9735	49080	6"	113.5	101.8	13.2	-3.8	CL
CBL-80	9860	49130	6"	114.9	103.0	12.6	-4.4	CL
CBL-81	9850	48990	12"	114.7	102.9	13.1	-3.9	CL
CBL-82	9850	48990	6"	112.2	100.7	13.8	-3.2	CL
CBL-83	9700	48940	6"	112.2	100.7	13.8	-3.2	CL
CBL-84	9500	48990	6"	104.7	93.9	14.3	-2.7	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA "LANDFILL

Project #: 93-003

Date: 8-12-93

Report No.: 19 PAGE 1 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 14759 Standard Counts: MS 594 DS 3156

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 68	CBL 69	CBL 70	CBL 71
Location	N 9080 E 48765	N 9080 E 48765	N 9270 E 48830	N 9430 E 48845
Density Count (DC)	470	2152	536	578
Moisture Count (MC)	175	183	160	153
Wet Density (WD)	130.2	133.0	126.4	124.2
Dry Density (DD)	114.2	116.3	112.0	110.6
Moisture (M)	15.9	16.8	14.4	13.7
Percent Moisture (%M)	14.0	14.4	12.9	12.4
Percent Compaction (DD/Y)	102.5	104.3	100.4	99.2
Pass/Fail (P or F)	P	P	P	P
	12"	6"	12"	12"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF — Name — 058155 — Cert. #

Paul J Neff — Signature — 8-12-93 — Date

AR300570

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA · LANDFILL

Project #: 93-003

Date: 8-12-93

Report No.: 19 PAGE 2 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 594 DS 3156

Proctor Values: ____ modified ✓ standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 72	CBL 73	CBL 74	CBL 75
Location	N 9430 E 48845	N 9300 E 49070	N 9300 E 49160	N 9300 E 49160
Density Count (DC)	2933	764	669	2964
Moisture Count (MC)	151	168	178	182
Wet Density (WD)	119.7	116.3	120.0	119.1
Dry Density (DD)	106.2	101.1	103.7	102.4
Moisture (M)	13.5	15.2	16.3	16.7
Percent Moisture (%M)	12.7	15.1	15.7	16.3
Percent Compaction (DD/Y)	95.3	90.7	93.0	91.9
Pass/Fail (P or F)	P	P	P	P
	6"	12"	12"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Signature PA300571 Date 8-12-93

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-12-93

Report No.: 19 PAGE 3 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 594 DS 3156

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 76	CBL 77	CBL 78	CBL 79
Location	N 9335 E 49175	N 9520 E 49110	N 9735 E 49080	N 9735 E 49080
Density Count (DC)	698	3090	504	2388
Moisture Count (MC)	168	148	165	166
Wet Density (WD)	118.8	117.5	128.2	128.5
Dry Density (DD)	103.6	104.3	113.2	113.5
Moisture (M)	15.2	13.2	14.9	15.0
Percent Moisture (%M)	14.7	12.6	13.2	13.2
Percent Compaction (DD/Y)	92.9	93.6	101.6	101.8
Pass/Fail (P or F)	P	P	P	P
	12"	6"	12"	6"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-12-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-12-93

Report No.: 19 PAGE 4 OF 4

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17755 Standard Counts: MS 594 DS 3156

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 80	CBL 81	CBL 82	CBL 83	CBL 84
Location	N 9860 E 4913 0	N 9850 E 48990	N 9850 E 48990	N 9700. E 48940	N 9500 E 48940
Density Count (DC)	2343	478	2428	2428	2926
Moisture Count (MC)	161	166	171	171	166
Wet Density (WD)	129.4	129.7	127.8	127.8	119.7
Dry Density (DD)	114.9	114.7	112.2	112.2	104.7
Moisture (M)	14.5	15.0	15.5	15.5	15.0
Percent Moisture (%M)	12.6	13.1	13.8	13.8	14.3
Percent Compaction (DD/Y)	103.0	102.9	100.7	100.7	93.9
Pass/Fail (P or F)	P	P	P	P	P
	6"	12"	6"	6"	6"

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-12-93 (Date)

AR300573

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG				
	DATE	08	13	93
	NO.	1	4	2
	SHEET	1	OF	2

FIELD ACTIVITY DAILY LOG

PROJECT NAME: PPG-HRANICA | PROJECT NO.: 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site - inspect field operations - ERM-Environ/Ecology, Inc personnel performing the following work activities:

1) Continued implementation of traffic and dust control program with placement of traffic warning signs at designated locations along Ekastown Rd prior to Hranica Drive to alert motorists of truck activity; also positioned flagman at the end of Hranica Drive to sign in visitors, direct traffic, as necessary, receive truck and sign and retain clay material bills, report concerns of mud to the vicinity as well as provide updates of truck status and dust conditions on Hranica to project staff via 2-way radio, and perform dust control on residential portion of Hranica Drive by applying water on an as-needed basis (i.e. usually every 2-3 hours) using the Hertz 500-gallon water tank pulled by the Snyder's Chevrolet pickup truck

2) Continued construction of the 2' clay barrier layer with placement and compaction of grey clay from Snyder Associated Companies Inc of Kittanning, PA; tandem dump truck "spot" dumping approximate 15cy loads along toe of entire slope and at various locations within the lower northern portions of the protective cover system; the John Deere 750 B dozer is being used to spread the clay material in loose, horizontal lifts no more than 8" thick up the 3H:1V and 2.5H:1V slopes and then compacting by slowly tracking the material into the previously scarified lift; the Caterpillar 825B sheepsfoot

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None	None
WEATHER CONDITIONS: Site Conditions - Dry. Partly cloudy and hot; morning fog. High/Low Temperatures - 91/67°F. Precipitation - None	IMPORTANT TELEPHONE CALLS: None

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE: William A. Montgomery

DATE: 8/13/93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 13 93 | NO. 1 4 3 | SHEET 2 OF 2

OJECT NAME PPG-HRANICA | PROJECT NO. 515423

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

compactor is utilized on flat areas and slopes less than 3H:1V to spread the grey clay in 8" thick or less loose horizontal lift over the specified work areas while simultaneously compacting a minimum of 4 passes consisting of 2 pass. in each of two perpendicular directions; inspected placement and compaction effort to verify coverage of areas as outlined on design drawing, placement of proper lift thicknesses, consistency of material, quantity of cbds, and implementation of correct compaction methods - for additional inspection information see the attached Clay Barrier Layer Construction Inspection form; Paul Neff of Pedersen Pedersen in Valencia, PA on site with Troxler 3411B nuclear density gage to conduct in-place moisture-density testing of clay - a total of 10 tests were performed at various locations within completed work areas with each test easily exceeding the performance requirement of 90% of the Standard Proctor Maximum Dry Density (111.5 pcf); note that calibration and testing procedure were supervised to confirm compliance - for details see the attached Field Moisture-Density test results sheet; a total of 55-15cy load received for a grand total of 825 cy - Project Total - 14220cy need to collect geotechnical samples as soon as practical; sealed all areas using CAT CS-553 vibratory smooth drum roller at end of work day.

3) Clearing and grubbing of small area (25'x50') of protective cover system northeast of main site access road adjacent equipment trailer using the Case 580C backhoe and placed material in truck turnaround at top of hill; also fine graded area using John Deere 750B dozer in preparation of clay placement

4) Reinstalling silt fence along eastern alignment downgradient of steep slope

5) Maintenance of Hranica Drive and main site access road using Case 580 backhoe

A total of 6 ERM-Envirochem personnel on site today including: 1 Site Manager, 1 Foreman, 2 Operators, 1 Technician, 1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 2	See sheet 1 of 2
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 2	See sheet 1 of — Shift 0600-1430

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE: 8/13/93

AR300575

ITA - 86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 515428
Unit No. —
Borrow Area Snyder Associated Companies Inc.

Date 8/13/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment Caterpillar 825B Sheepsfoot Compactor and CS-553 Vibratory Smooth Drum Roller, John Deere 750B Dozer,
Soil Description Gray Clay USCS Classification - CL
Weather Partly cloudy and hot High - 91°F
Volume and Location of Material Placed During Shift 825 cubic yards placed along entire toe of slope and lower, northern portions of protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/13/93

Project Name PPG-HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-85	9375	48995	6"	105.3	94.5	12.7	-4.3	CL
CBL-86	9375	48995	12"	111.5	100.1	11.1	-5.9	CL
CBL-87	9400	49060	12"	107.9	96.8	10.6	-6.4	CL
CBL-88	9400	49060	6"	103.8	93.1	11.6	-5.4	CL
CBL-89	9475	49020	6"	101.6	91.2	12.3	-4.7	CL
CBL-90	9525	49090	6"	104.8	94.0	13.2	-3.8	CL
CBL-91	9610	49050	6"	109.0	97.8	11.5	-5.5	CL
CBL-92	9840	49090	6"	104.2	93.5	11.7	-5.3	CL
CBL-93	9700	48940	6"	107.3	96.2	10.1	-6.9	CL
CBL-94	9540	48970	6"	102.6	92.0	10.7	-6.3	CL
—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-13-93

Report No.: 20 PAGE 1 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 587 DS 3130

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 85	CBL 86	CBL 87	CBL 88
Location	N 9375 E 48995	N 9375 E 48995	N 9400 E 49060	N 9400. E 49060
Density Count (DC)	2979	580	682	3193
Moisture Count (MC)	148	139	130	135
Wet Density (WD)	118.7	124.0	119.4	115.8
Dry Density (DD)	105.3	111.5	107.9	103.8
Moisture (M)	13.4	12.4	11.5	12.0
Percent Moisture (%M)	12.7	11.1	10.6	11.6
Percent Compaction (DD/Y)	94.5	100.1	96.8	93.1
Pass/Fail (P or F)	P	P	P	P
	6"	12"	12"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff AR3000578 (Signature) 8-13-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-13-93

Report No.: 20 PAGE 2 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 587 DS 3130

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 89	CBL 90	CBL 91	CBL 92
Location	N 9475 E 49020	N 9525 E 49090	N 9610 E 49050	N 9840. E 49090
Density Count (DC)	3317	2980	2791	3145
Moisture Count (MC)	140	153	140	137
Wet Density (WD)	114.2	118.7	121.5	116.4
Dry Density (DD)	101.6	104.8	109.0	104.2
Moisture (M)	12.5	13.9	12.5	12.2
Percent Moisture (%M)	12.3	13.2	11.5	11.7
Percent Compaction (DD/Y)	91.2	94.0	97.8	93.5
Pass/Fail (P or F)	P	P	P	P
	6"	6"	6"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 4300579 8-13-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-13-93

Report No.: 20 PAGE 3 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 587 DS 3130

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 93	CBL 94		
Location	N 9700 E 48940	N 9540 E 48970		
Density Count (DC)	3028	3372		
Moisture Count (MC)	124	125		
Wet Density (WD)	118.1	113.6		
Dry Density (DD)	107.3	102.6		
Moisture (M)	10.9	11.0		
Percent Moisture (%M)	10.1	10.7		
Percent Compaction (DD/Y)	96.2	92.0		
Pass/Fail (P or F)	P	P		
	6"	6"		

Notes: _____

Client Name & Address: _____

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NERF 058155
Name Cert. #

Paul J Neff AR300580 8-13-93
Signature Date

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	14	93
	NO.	1	4	4
	SHEET	1	OF	

OJECT NAME PPG-HRANKA | PROJECT NO. 515422

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; inspect field operations - ERM-Environmental performing the following work activities:

1) Continued implementation of traffic and dust control program with stationing of Flagman at the intersection of Hranica Drive and Ekastown Road; Flagman responsibilities include setting traffic warning signs (i.e. Flagman Ahead and Trucks Crossing) along Ekastown Road to alert passing motorists of construction activity, sign in visitors, receive trucks and sign and retain each clay material bill, act as liaison between residents and project staff, direct traffic, as required monitor truck traffic (i.e. speed etc.) and dust conditions on Hranica Drive, and periodically perform dust control by applying water to residential segment of Hranica Drive using the Hertz 500-gallon water tank pulled by ERM-Environmental Chevy pick-up — roadway requires water approximately every 2 hours due to dry surface conditions

2) Continued construction of 2' thick clay barrier layer as part of protective cover system (PCS) with placement and compaction of gray clay from Snyder Associated Companies, Inc in Kittanning, PA. Tandem dump 'spot' dumping 215 cy loads along top of 3H:1V slope and lower northwestern portion of PCS after 1 hour 20 minute round trip; the John Deere 750 B dozer is used to spread the piles in thin, loose horizontal lifts not exceeding 8" thick and slowly tracking material to

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None	None
WEATHER CONDITIONS: Site Conditions - Dry Clear and hot High/Low Temperature - 91/64°F Precipitation - None	IMPORTANT TELEPHONE CALLS: None

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 8/14/93

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	08	14	93
	NO.	1	4	5
	SHEET	2	OF	?

FIELD ACTIVITY DAILY LOG

PROJECT NAME	PPG-HRANICA	PROJECT NO.	515479
FIELD ACTIVITY SUBJECT:	REMEDIAL ACTION QA/QC		

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

achieve desired level of compaction as the main site access road is brought up to grade where it crosses the PCS the sheep's foot compactor is utilized to spread, loose, horizontal lifts of 8" thick or less on the northwestern area and compact a minimum of 4 passes consisting of 2 passes in each of two perpendicular directions. randomly inspected placement and compaction operations to confirm compliance with project requirements. Inspection items include proper lift thickness, monitoring of clay to verify consistency and minimization of clods and deleterious materials, scarifying of previous lifts, correct compaction method performance - for additional inspection information see the attached Clay Barrier Layer Construction Inspection form all operation being conducted in a quality workmanlike fashion; a total of 10 - 15 cy load received for a grand total of 15,750 cy; no moisture-density testing conducted today. Pedersen & Pedersen will be on site Monday morning, no samples collected today but clay samples 11, 12A/B, 13, 14A/B and 15 is scheduled Monday morning also; all work areas were sealed using the CAT CS-553 vibratory smooth drum roller at end of work.

A total of 4 EEM- Envirotech, Inc personnel on site today including:

Shift 0600 - 1400

1 Foreman
2 Operators
1 Technician

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 2	See sheet 1 of 2
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 2	See sheet 1 of 2

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE: William A. Montgomery DATE: 8/14/93

32"A-7-86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANKA
Project No. 515428
Unit No. —
Borrow Area Snyder Associated Companies, Inc

Date 8/14/93
Inspected by William A. Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment John Deere 750B Dozer, CAT 825B Sheepsfoot Compactor and CS-553 Vibratory Smooth Drum Roller
Soil Description Gray clay USCS Classification - CL
Weather Partly cloudy and hot high - 91°F
Volume and Location of Material Placed During Shift 1530 cubic yards placed on hilltop adjacent ash burn pile cap (access road) and northwestern portion of protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG				
	DATE	08	16	93
	NO.	1	4	6
	SHEET	1	OF	3

FIELD ACTIVITY DAILY LOG

PROJECT NAME	PPG-HRANICA	PROJECT NO.	515428
FIELD ACTIVITY SUBJECT:	REMEDIAL ACTION QA/QC		

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site; in-port site operations - ERM - Envirotech Inc. personnel perform the following work activities today:

1) Continued implementing traffic and dust control programs with positioning of a flagman at the end of Hranica Drive whose duties include) placement of traffic warning signs along Ekastown Rd prior to Hranica Drive to alert motorists of truck activity; 2) directing traffic, as need; 3) signing in visitors; 4) receiving trucks and signing and retaining clay material bills of lading; 5) monitoring truck traffic (ie speed, volume) and dust conditions on Hranica Drive and conveying to project staff via two-way radio upon request; 6) and assisting in dust control measures which consists of applying water to the residential segment of Hranica Drive using the Hertz 500 gallon water tank pulled by the ERM-Envirotech, Inc. Chevrolet pick up truck; this procedure is performed every 2-3 hours during dry periods and is very effective in limiting dust generation in this vicinity in which calcium chloride has been applied.

2) Continued construction of the 2' clay barrier layer component of the protective cover system with placement and compaction of grey clay from Snyder Associated Companies, Inc. in Kittanning, PA on the entire northern, lower portions of the protective cover system tandem dump trucks "spot" dumping 15 cy loads at various locations within the northern limits and the CAT 825B sheepsfoot compactor is utilized to spread the material in 8" or less lifts within the work area and immediately compact a minimum of 4 passes consisting

VISITORS ON SITE:
Dave McCue - Site Representative for Snyder Associated Co, Inc

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
None

WEATHER CONDITIONS: Site Conditions - Dry
Partly cloudy, very warm and humid
High/Low Temp - 88/71°F
Precipitation Weekend - None Today - Trace

IMPORTANT TELEPHONE CALLS:
Held 2½ hour conference call with Jan Ebbert of PPG Industries Inc. and Mark Weisberg of IT to discuss in detail, the itemized responses to agency comments on the Groundwater Verification St...

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery DATE: 8/16/93

AR300584

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	08	16	73
	NO.	1	4	7
	SHEET	2	OF	3

PROJECT NAME: PPG-HRANICA | PROJECT NO.: 51572

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

of 2 passes in each of two perpendicular directions; also using the John Deere 750B dozer to place and compact 8" thick loose horizontal lifts on the 3H:1V slope and in the vicinity of monitoring well cluster set 3 to meet design requirements – compaction is achieved in these areas by the dozer slowly tracking the material as it is applied; periodically inspect field operations to verify compliance with specifications, in particular, 1) consistency of clay material which continues to be gray clay; 2) lift thickness which have been 8" or less; 3) quantity and size of clods which have constantly been present in loads, mostly 6" or less in size, but readily break down upon compaction; 4) confirm scarification of previous lift; 5) performance of compaction using prescribed methods; Paul Neff, Troxler nuclear gauge technician from Pedersen & Pedersen in Valencia, PA on site to conduct in-place moisture-density testing of completed clay placement areas; observed standardization of Troxler 3411B nuclear moisture-density gauge and supervised performance of 12 in-place moisture-density tests all of which easily surpassed the compaction performance requirement of 90% Standard Proctor Maximum Dry Density (111.5 pcf) – see the attached forms for details regarding clay barrier layer construction inspection and field moisture-density test results; all areas less than 3H:1V slope were compacted and sealed using the CAT CS-553 vibratory smooth drum roller at the end of the work day; a total of 106 trucks equaling 1590 cy were placed and compacted today; Project Total to Date - 17340

3) Collected clay samples CL-11, 12A/B, 13, 14A/B, 15 and 16A/B from

VISITORS ON SITE:

See sheet 1 of 3

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.

See sheet 1 of 3

WEATHER CONDITIONS:

See sheet 1 of 3

IMPORTANT TELEPHONE CALLS:

See sheet 1 of 3

IT PERSONNEL ON SITE: ~~William A Montgomery~~

SIGNATURE: William A Montgomery DATE: 8/16/73

AR300585

IT-7A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	8	14	93
	NO.	1	4	8
	SHEET	3	OF	3

FIELD ACTIVITY DAILY LOG

PROJECT NAME	PPG-HRANICA	PROJECT NO.	515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

their respective locations and temporarily stored in equipment trailer until scheduled delivery to Triad Engineering, Inc. in Gregisburg PA for the following geotechnical tests: 1) Soil classification (ASTM D-2487); 2) Atterberg Limits (ASTM D-4318), and Grain Size Analysis (ASTM D-422) which are required every 1000 cy and the Standard Proctor (ASTM D-698) which is specified once every 2000 cy. Discuss permeability test requirements with Site Manager Tony Kessler, in particular, need to procure 6 Shelby tubes to collect undisturbed samples of 2' clay barrier layer at 3 locations (2 Shelby Tubes per location) - Tony will call Pennsylvania Drilling of Pittsburgh who is scheduled to be on site within the next 2 weeks to perform well abandonment; see attached sample collection and chain of custody/request for analysis documentation for details

4) Transferred riprap and No. 57 stone stockpiles from within limits of protective cover system to locations outside the limits using the 580 backhoe to facilitate clay barrier layer construction in these areas

A total of 6 ERM-Environcon, Inc. personnel on site today including:

Work Shift 0600-1730

1 Site Manager.
1 Foreman
2 Operators
1 Technician
1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A. Montgomery

SIGNATURE William A. Montgomery DATE: 8/16/93

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANICA
Project No. 315428
Unit No. —
Borrow Area Snyder Associated Companies

Date 8/16/93
Inspected by William A Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment John Deere 750B Dozer, CAT 825 Sheepsfoot Compactor and CS 553 Vibratory Roller
Soil Description Gray Clay USCS Classification - CL
Weather Partly cloudy and very warm High - 88°F
Volume and Location of Material Placed During Shift 1590 cy placed on entire northern lower portion of protective cover system and 3H:1V slope

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8/16/93

Project Name PPG HRANICA

Project No. 515428

Borrow Area Snyder Associated Companies, Inc.

Maximum Dry Density (pcf) 111.5

Optimum Moisture (%) 17.0

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-95	9340	48850	6"	117.5	105.4	11.5	-5.5	CL
CBL-96	9360	48920	12"	105.5	94.6	12.6	-4.4	CL
CBL-97	9360	48920	6"	107.8	96.7	12.4	-4.6	CL
CBL-98	9300	48900	6"	111.4	99.9	11.3	-5.7	CL
CBL-99	9810	48960	6"	100.8	90.4	10.3	-6.7	CL
CBL-100	9610	49030	6"	114.5	102.7	9.5	-7.5	CL
CBL-101	9460	49130	12"	114.6	102.8	9.7	-7.3	CL
CBL-102	9460	49130	6"	113.8	102.1	10.2	-6.8	CL
CBL-103	9390	49160	6"	103.3	92.7	10.3	-6.7	CL
CBL-104	9625	49082	6"	115.8	103.9	9.8	-7.2	CL
CBL-105	9840	49030	6"	112.8	101.2	9.5	-7.5	CL
CBL-106	9915	49140	6"	113.7	102.0	9.1	-7.9	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-16-93

Report No.: ~~21~~ 21N 21 PAGE 1 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 580 DS 3147

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 95	CBL 96	CBL 97	CBL 98
Location	N 9340 E 48850	N 9360 E 48920	N 9340 E 48920	N 9300 E 48900
Density Count (DC)	2255	698	2829	2653
Moisture Count (MC)	148	146	146	139
Wet Density (WD)	131.0	118.8	121.2	124.0
Dry Density (DD)	117.5	105.5	107.8	111.4
Moisture (M)	13.5	13.3	13.3	12.6
Percent Moisture (%M)	11.5	12.6	12.4	11.3
Percent Compaction (DD/Y)	105.4	94.6	96.7	99.9
Pass/Fail (P or F)	P	P	P	P
	6"	12"	6"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Signature 8-16-93 (Date)

AR300589

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-16-93

Report No.: 21 PAGE 2 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 580 DS 3147

Proctor Values: ____ modified X standard Opt. Moisture 17.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL 99	CBL 100	CBL 101	CBL 102
Location	N 9810 E 48960	N 9610 E 49030	N 9460 E 49130	N 9460 E 49130
Density Count (DC)	3587	2568	550	2566
Moisture Count (MC)	118	123	125	130
Wet Density (WD)	111.2	125.4	125.7	125.4
Dry Density (DD)	100.8	114.5	114.6	113.8
Moisture (M)	10.4	10.9	11.1	11.7
Percent Moisture (%M)	10.3	9.5	9.7	10.2
Percent Compaction (DD/Y)	90.4	102.7	102.8	102.1
Pass/Fail (P or F)	P	P	P	P
	6"	6"	12"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: PAUL NEFF (Name) 058153 (Cert. #)

Signature PR300590 (Date) 8-16-93

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-16-93

Report No.: 21 PAGE 3 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 580 DS 3147

Proctor Values: ____ modified X standard Opt. Moisture 14.0 density (Y) 111.5

% Moisture Deviation Permitted _____

Test #	CBL103	CBL104	CBL105	CBL106
Location	N9390 E49160	N9625 E49080	N9840 E49030	N9915 E49140
Density Count (DC)	3364	2468	2687	2649
Moisture Count (MC)	120	127	121	118
Wet Density (WD)	113.9	127.2	123.5	124.1
Dry Density (DD)	103.3	115.8	112.8	113.7
Moisture (M)	10.6	11.3	10.7	10.4
Percent Moisture (%M)	10.3	9.8	9.5	9.1
Percent Compaction (DD/Y)	92.7	103.9	101.2	102.0
Pass/Fail (P or F)	P	P	P	P
	6"	6"	6"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul Neff (Signature) AR300591 8-16-93 (Date)

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG				
	DATE	03	17	93
	NO.	1	4	9
	SHEET	1	OF	3

FIELD ACTIVITY DAILY LOG

PROJECT NAME PPG- HRANICA	PROJECT NO. 51542
FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC	

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0700 Arrive at site. Inspect daily operations - ERM-Environmental, Inc personnel and/or subcontractors performing the following work activities:

1) Continued implementation of traffic and dust control programs with stationing of flagman at the intersection of Hranica Drive and Ekastown Road, flagman responsibilities include a) placement of traffic warning signs (i.e., Flagman Ahead (Orange/Black) and Trucks Crossing (Yellow/Black)) along Ekastown Road north and southbound lanes prior to Hranica Drive at the beginning and end of each work day; b) sign in visitors; c) receive each truck and sign and retain clay material bills; d) monitor traffic and dust conditions on Hranica Drive and update project staff upon request, e) assist traffic, as needed; and f) help implement dust control measures which consist of one application of water on Hranica Drive every 2-3 hours or as needed using the Hertz 500-gal water tank pulled by the company Chevrolet pickup which can now ascend the hill since it has a new tranny.

2) Continued construction of the 2' clay barrier layer within the limits of the protective cover system with placement and compaction of gray clay from Snyder Associated Companies Inc. of Kittaning, PA; tandem dump truck "scatter dumping" 15 cy loads over various areas of the northern protective cover system and along the toe of the 3H:1V slope where additional clay is required; the CAT 825B sheepsfoot compactor is used to spread the piles in thin, loose, horizontal lifts no more than 8" thick and compact by passing a minimum of 4 times (i.e., 2 passes in each of two perpendicular directions over work areas less than 3H:1V slope while the John Deere 750B

VISITORS ON SITE: Dave Weick - IT Corporation	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS: Instructed Site Manager, Tony Kaster, that soil cover sample needs to be collected and sent to lab to determine fertilizer types and quantities. Also requested Shelby tube be procured for permeability testing.
WEATHER CONDITIONS: Site Conditions: Dry Partly cloudy and very warm High/Low Temp. - 84/71°F Precipitation - 0.3"	IMPORTANT TELEPHONE CALLS: Mark Weisberg - Check status of Final Groundwater Verification Study Report and
IT PERSONNEL ON SITE: William A Montgomery, Dave Weick	
SIGNATURE: William A Montgomery	DATE: 8/17/93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 17 93 | NO. 1 5 0 | SHEET 2 OF 3

PROJECT NAME PPG-HRANICA | PROJECT NO. 515420

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

dozer spreads loose, horizontal lifts approximately 8" thick or less up the slope and compacts by slow tracking the material in; perform random inspection of clay placement and compaction to confirm a) proper lift thicknesses are being placed; b) compaction methods are being adhered to and c) previous lifts are scarified accordingly and verify that a) material received meets the specifications and is of consistent quality; b) minimization of clods; c) designated work areas are covered as indicated by field references; for additional inspection information see the attached Clay Barrier Layer Construction Inspection Form; no in-place moisture-density test were conducted today since Paul Neff was surveying the site; received a total of 69-15cy loads for a grand total of 1035cy Project Total to Date is 18375 cy.

3) Survey subcontractor, Pedersen & Pedersen on site to re-establish 50'x50' grid over entire site and field reference each grid node with a a stake marked with the following data: a) project specific north and east coordinates; b) status of clay placement (cut or fill) with fill indicated by pink ribbon and c) soil cover material level as indicated by yellow ribbon to produce final grades

4) Continued construction of western surface water collection ditch with installation of approximately 200' of channel; the John Deer 750B dozer was used to fine grade the ditch to specified lines and grades; supervised and instructed operator during installation. a 29' wide layer of geotextile was then placed in the V-shaped channel and 6-9" of riprap was placed in the ditch using the Case 580 backhoe; verified construction was to the lines and grades indicated on drawing and construction materials

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A Montgomery, Dave Waick

SIGNATURE William A Montgomery DATE: 8/17/93

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG			
	DATE	8	17	93
	NO.	1	5	1
	SHEET	3	OF	3

FIELD ACTIVITY DAILY LOG

PROJECT NAME: PPG - HRANICA | PROJECT NO.: 51543

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION CAP

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

were as specified. note that alignment was moved slightly to maintain the ditch top of slope with the eastern edge of the main access road; all work was performed in a quality professional manner remainder which crosses main site access road will be completed later

5) Maintenance of Hranica Drive and main site access road using the Case 580 backhoe to fine grade all surfaces and place additional No 57 stone, as needed; also compacting all haul road in vicinity of site using the CAT CS-553 vibratory smooth drum roller

6) Continued construction 2' clay barrier layer on small (25'x50') area on opposite side of main site access road; 8" thick or less lifts being placed using the John Deere 750B dozer and compacting using the CAT CS-553 vibratory smooth drum roller; note that all areas less than 3H:1V slope are compacted also using the CAT CS-553

7) Grooving and sealing of all areas (< 3H:1V slope) at the end of the work day using the CAT CS-553 vibratory smooth drum roller in the event of rainfall

1330 Dave Weck of IT Corporation arrived on site to replace me for the remainder of the week; reviewed schedule of work for remainder of week QA/QC officer responsibilities, documentation requirements, project staff and walked site to provide orientation to work area and procedures. Introduced Dave to project staff, surveyor, etc.

A total of 6 ERM-Environmental Inc personnel on site today including: 1 Site Manager, 1 Foreman, 2 Operators, 1 Technician 1 Laborer Shift 0600-1700

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of	See sheet 1 of
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of	See sheet 1 of

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE: William A. Montgomery DATE: 8/17/93

IT A - 86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG-HRANKA
Project No. 515428
Unit No. –
Borrow Area Snyder Associated Companies, Inc.

Date 8/17/93
Inspected by William A Montgomery
Max. Dry Density (pcf) 111.5
Opt. Moisture (%) 17.0

Compaction Equipment CAT 825B Sheepsfoot Compactor and CS-553 Vibratory Smooth Drum Rolle
Soil Description Gray clay USCS Classification - CL
Weather Partly cloudy and very warm High - 87°F
Volume and Location of Material Placed During Shift 1035 cubic yards placed on northern protective cover system and 3H:1V slope

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	08	3	93
NO.	1	5	2
SHEET	1	OF	5

PROJECT NAME PPG HRANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0600 ARRIVE at site; INSPECT site OPERATIONS - ERM - ENVIROCEAN INC ARE ON SITE PREFORMING the following ACTIVITIES:

1) CONTINUED to IMPLEMENT TRAFFIC AND dust CONTROL with PLACEMENT of ORANGE / BLACK "FLAGMAN AHEAD" AND YELLOW/BLACK "TRUCK CROSSING" SIGN ALONG EACH LANE of EKASTOWN ROAD PRIOR to ENTERING HARANICA DRIVE to WARN MOTORIST of ONGOING ACTIVITY. A FLAGMAN HAS been STATIONED AT the ENTRANCE to RECEIVE AND SIGN MATERIAL bills from the TRUCKERS, SIGN-IN VISITORS AND MONITOR TRUCK TRAFFIC AND dust CONDITIONS ON HARANICA DRIVE. Dust MEASURE ALONG HARANICA DRIVE ARE TAKEN CARE of by the APPLICATION of WATER ALONG the RESIDENTIAL segment of HARANICA DRIVE, USING A Heetz 500 GALLON WATER TANK pulled by A Company Chevy PICKUP; APPROXIMATELY 3/10" of RAIN fell LAST NIGHT AND should keep the dust down till NOON TODAY. APPROX. 69 TRUCK LOADS of CLAY were delivered AND SPREAD IN 6" LIFTS yesterday FOR A total of 1035 YD^3. Total to DATE; PER Tony Kessler IS 17,978 YD^3

2) CONTINUED CONSTRUCTION of CLAY BARRIER LAYER, within limits of PROTECTIVE COVER SYSTEM with PLACEMENT AND COMPACTION of GRAY CLAY from Snyder Associates

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS: Site conditions-Damp Clear, Hot, Humid (FOGGY, MORNING) HIGH/Low temp. 86/67°F PRECIPITATION - NONE (3/10" LAST NIGHT)	IMPORTANT TELEPHONE CALLS: NONE

IT PERSONNEL ON SITE: DAVID A WEICK

SIGNATURE David A Weick DATE: 8·18·93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 08 18 93 | NO. 1 5 3 | SHEET 2 OF 5

IOJECT NAME PPG HARANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: Remedial Action QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Companies, Inc. in Kittaning, Pa; Tandem dumps (Approx 15y0^3) are dumping at the top of slope (3:1) and also south end of site for final grading and compaction. The John Deere 750 is being used to spread the loose piles in horizontal lifts of 8" or less over steep areas. Compaction consist of 4 passes with 2 passes in each of two perpendicular directions. The compaction is acheived using a CAT 825 sheepsfoot roller. Perform random inspection to verify lift thickness, material consistency compaction method and testing. Contractor is placing silt fence at the southwest end of site between the woods and limits of clay barrier placement.

3) Paul Neff is putting stakes in for final grading on the south end of the site. This should be complete by noon morning. He is going to some compaction test this afternoon will be leaving by 1200 today.

4) Trucks this morning are placing loads along the section / bench. We need about (3) days to complete area. Compaction is being done using the 825 CAT sheepsfoot roller. The material coming in is dry, mixing and blending with the existing clay material (wet from

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
SEE SHT. 1 OF 5	NONE

IT PERSONNEL ON SITE: David A. Weick

SIGNATURE David A. Weick DATE: 8·18·93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 18 93 | NO. 1 5 4 | SHEET 3 OF 5

PROJECT NAME LPG HARWICK | PROJECT NO. 515[illegible]

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

RAIN STOPPED AT ABOUT [illegible] THE COMPACTION AREA WE JUST DOWN TO [illegible] TODAY. THE [illegible] ROLLER BROKE DOWN WITH A HYDRAULIC LEAK. KEN IS GOING TO HAVE IT REPAIRED OR HAVE A NEW ONE DELIVERED. [illegible] TO BE ABLE TO SEAL THE CAP AREA IN THE MORNING.

5) SURVEYORS HAVE COMPLETED SETTING FINAL TOPOGRAPHIC GRADE STAKES FOR THE SOUTH END OF THE SITE. TONY AND I WALKED THE AREA, MOST OF THE AREA IS AT GRADE THERE IS A COUPLE OF SPOTS WHERE WE NEED A COUPLE OF TRUCK LOADS TO FINISH. I'VE SUGGESTED TO TONY THAT HE USE SOME OF THE CLAY MATERIAL THAT IS PLACED A LITTLE FURTHER ON THE SOUTH END TO REGRADE AND FINE TUNE THIS AREA. THE SURVEYOR HAD TO LEAVE (1000). THERE IS A HEAVY FOG STILL THIS MORNING AND SOME OF THE CLAY ON THE SLOPES IS A LITTLE TO WET TO DO COMPACTION TEST. HE IS GOING TO RETURN TOMORROW MORNING TO DO THE INPLACE MOISTURE DENSITY TEST. WE WILL CONTINUE TO PLACE MATERIAL IN THE FLAT BENCH AREA AND DOWNSLOPE TO THE EAST ALONG THE ℄ PROPOSED DIVERSION DITCH. KEN KELLY WILL COMPLETE THE PLACEMENT OF RIPRAP FOR DIVERSION DITCH BETWEEN THE EDGE OF CLAY BARRIER CAP AND THE EXISTING ROAD THIS MORNING, SOME HAND WORK

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
SEE SHT 1 OF 5	NONE

IT PERSONNEL ON SITE: DAVID A. WECK

SIGNATURE David A Weck DATE: 8·18·93

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INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 18 93 | NO. 1 5 5 | SHEET 4 OF 5

OJECT NAME PPG HARANICA | PROJECT NO. 51542

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

MAY BE REQUIRED TO FINISH THE DITCH.

6) RECEIVED GRAIN SIZE CURVES AND CLASSIFICATION FOR CL-3, CL-4A, CL-5, CL-6, CL-7, FM-10A AND FM-12A, FROM TRIAD ENGINEERING, INC. RESULTS INDICATE THAT THE SAMPLES DESIGNATED (CL) ARE ALL GRAY CLAY AND THE (FM) SAMPLES ARE ALL BROWN POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM). SEE ATTACHED SHT. FOR GRAIN SIZE ANALYSIS.

1500

7) CONTINUED DRESSING UP SOUTH END OF CLAY BARRIER CAP CS-553 IS SEALING THIS AREA. IT IS ON GRADE WITH THE EXCEPTION OF ONE LOW SPOT. THIS WILL BE GRADED TO MATCH THE SURROUNDING CLAY BARRIER CAP. NO TEST IS REQUIRED FOR THIS ADDITIONAL REGRADING. IT IS ± 4/10' ~~of foot~~ FOR ABOUT A 20 X 30 AREA. TRUCKS ARE DUMPING AT THE TOP OF SLOPE JUST WEST OF MW-31 THIS AREA SHOULD BE CLOSE TO GRADE WITH THE EXCEPTION OF THE ROAD. DUST HASN'T BEEN A PROBLEM SO FAR. THE FOG DIDN'T BURN OFF UNTIL ALMOST NOON TODAY.

8) TALKED TO TONY OF ERM AS TO HOW HE IS GOING TO PLACE TOPSOIL ON THE TOP SOUTH WEST AND EAST PORTIONS OF THE FINISHED CLAY BARRIER CAP. HE SAID THAT HE WOULD

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
SEE SHT. 10F5	NONE

IT PERSONNEL ON SITE: DAVID A. WEICK

SIGNATURE David A. Weick DATE: 8·18·93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 18 93 | NO. 1 5 6 | SHEET 5 OF 5

PROJECT NAME PPG HARANICA | PROJECT NO. 51542

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

like to finish the entire cap. The problem I see is that if you complete the cap you may cut off your access road ontop for the soil cover placement. Ive made some suggestions; that he could stockpile soil cover material while he's bringing in clay, then when the clay cap has been completed spread the stockpiled soil cover with a dozer. the other option; to complete the entire cap and prouide access to the south and west sides using some of the soil to prouide a road over the sloped portion of the cap. if it's not to steep.

Again no compaction test were prefoemed today. Paul Neff had to leave at 1100 this morning and the material at the top of slope was wet and we hadnt placed a full lift for testing. Tommorow we will be testings slope (3:1) on the west side adjacent to the road and the flat area (toe of 3:1 slope). Approx 59 trucks today ±885 yd³ today Total 19,260 yd³

Work Shift 0600-1730

1 Site Manager
1 Foreman/operator
2 operators
1 Technician
1 Laborer

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
SEE SHT 1 OF 5	NONE

IT PERSONNEL ON SITE: DAVID A WEKK

SIGNATURE David A Wekk DATE: 8/18/93

AR300600

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG HARANICA
Project No. 515428
Unit No. —
Borrow Area SYNDER ASSOCIATES COMPANIES INC

Date 8.18.93
Inspected by DAVID A. WEICK
Max. Dry Density (pcf) 115.75
Opt. Moisture (%) 15.125

Compaction Equipment CATERPILLAR 825B Sheepsfoot compactor / John Deere 750B Dozer
Soil Description GRAY CLAY
Weather HAZY, HOT AND HUMID High 88°
Volume and Location of Material Placed During Shift 885 yd^3 ALONG SLOPE (3:1) AND LOWER BENCH AREA of protective cover system

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:
CLAY WAS PLACED, but no test were taken due to availability of Paul Neff. Test will be performed tomorrow 8.19.93 at 0800

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 5 | 19 | 93
NO. 1 | 5 | 7
SHEET 1 OF 6

PROJECT NAME PPG HARANICA | PROJECT NO. 515422

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0600 ARRIVE at site; INSPECT site operations, ERM - ENVIROCLEAN, INC. ARE ON site preforming the following activities:

1). CONTINUED to implement traffic AND dust conteol AS REQUIRED. TRAFFIC signs HAVE been PLACED ALONG EKASTOWN ROAD AND stationing of flagman AT the INTERSECTION of HARANICA DRIVE AND EKASTOWN ROAD to direct traffic AS needed during the day AS trucks hauling clay ENTER AND EXIT; other duties ARE to SIGN ALL VISITORS IN AND OUT, ALL bills of loading from truck drivers AND MONITOR dust ALONG HARANICA DRIVE. Dust control is ACCOMPLISHED by USING A 500 GALLON Heetz WATER truck pull behind A chevy PICKUP TRUCK.

2) CONTINUED GRADING AND PLACEMENT of clay BARRIER CAP on the bench AREA AT the toe of (3:1) slope AND top of slope ADJACENT to ditch ALONG ROAD. Clay stockpiled AT the TOE of 3:1 slope IS being pushed up slope to finish final GRADING of low spots. The John Deere 750B dozer then IS TRACKING HORIZONTALLY ACCROSS the slopes to COMPACT. The 825B HAS A difficult time compacting ALONG the slope AREAS. The 825B Sheeds foot compactor IS PUSHING clay ALONG the top of the 3:1 SLOPE AND compacting

VISITORS ON SITE:
ANN ESTABROOK - CHZM Hill
TONY EDBEET - PPG
DAVE GUZIK - ERM - ENVIROCLEAN, INC.

CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE

WEATHER CONDITIONS: site CONDITIONS - DRY
Foggy (MORN.) HAZY, HOT, HUMID (AFTERNOON)
High/Low Temp. 90/63°
PRECIPTATION - NONE

IMPORTANT TELEPHONE CALLS:
NONE

IT PERSONNEL ON SITE: DAVID A. WEICK

SIGNATURE David A Weick

DATE: 8.19.93

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INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG			
DATE	5	13	92
NO.	1	5	8
SHEET	2	OF	6

OJECT NAME DPG HARANICA | PROJECT NO. 3152.2

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

with A MINIMUM OF 4 PASSES

3) PAUL Neff of Pederson & Pederson is here to do the compaction test. I've asked him to do (1) test ALONG the FLAT AREA of clay BARRIER CAP at the toe of slope (2) AND (3) in the AREA At the NORTH END of the site. Two test were done ON the 3:1 slope MIDWAY AND passed the other failed. TWO ADDITIONAL were also done ontop of the 3.1 slope ADJACENT to the ditch AND failed. I've ASKED Tony REWORK both the AREAS. AND we will test tomorrow. PAUL Neff had to leave by 1030. A total of (11) test were done (All PASSED). SEE Attached compaction test data.

0930

4) Met with ANN ESTABROOK, TONY EBBERT, AND DAVE GOSS. TONY OF ERM TO DISCUSS ISSUES AND CONCERNS: AS SHOWN completion of CLAY PLACEMENT, NO. of trucks to complete placement of topsoil, clay cap SURVEY AND DRAINAGE ditch ON the EAST SIDE AND how we will CONSTRUCT from the high point down. PRIOR to meeting ANN ESTABROOK AND I took A site WALK, showing her the completed AREA. AREAS that NEEDED further clay MATERIAL AND MINOR fill [illegible]

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
SEE SHT 1 OF 6	NONE
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
SEE SHT 1 OF 6	NONE

IT PERSONNEL ON SITE: DAVID A. WEICK

SIGNATURE David A Weick DATE: 5 [illegible]

AR300603

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INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 | 10 | 93 | NO. 159 | SHEET 3 OF 6

PROJECT NAME PPG HARANICA | PROJECT NO. 515105

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION DAILY LOG

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

1) 8:55 Sheepsfoot compactor is pushing piles dumped at the end of access road to build up area between the two slopes. Approx 2' of clay is required to complete this area. The John Deere 750 dozer is doing minor regrading along the slopes and in areas where some small amounts of clay are needed to fine grade low spots etc.

1200 6) Dave Guzik - ERM, and Tony Kessler talked to me about construction of the east drainage ditch. Dave Guzik of ERM ask if was possible to move the channel to the west along the slope before starting across the slope with the channel construction. I've looked at it and don't see any major impact. Two reasons for moving it slightly west, is for constructibility and safety. The slope is fairly steep at this point. The dozer would have to travel cross slope at a pretty steep angle to begin constructing channel. Tony Kessler and Ken Kelly believe that we have more than 2'-0 of clay in this area. I've suggested that they verify and recompact. We are going to make the initial cut or slight bench to construct the channel at the top. The clay material will be placed at the

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
SEE SHT 1 OF 6	NONE
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
SEE SHT 1 OF 6	NONE

IT PERSONNEL ON SITE: DAVID A. WEICK

SIGNATURE David A. Weick DATE: 8-19-93

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 19 93 | NO. 1 6 0 | SHEET 1 OF 6

OJECT NAME PPG HARANICA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

bottom AND compacted to form a bench adjacent to the slope we will work up to top from from both sides. Construction of channel will REQUIRE SOME WORK TO Complete ON the upstream SIDE. the bottom shouldn't be A problem.

7) Paul Neff has supplied us with the field cuts & fill data from 8.17.93 AND A dwg showing the subbase PRIOR to clay placement.

8) TRUCKS ARE placing loads on the bottom to achieve APPROX final grade for the clay. TONY is planning to bring in soil material on MONDAY AND stockpile AND complete dzessing of All AREAS before FINAL survey ON Tues. by Paul Neff.

1300

9) Paul Neff has been scheduled to do compaction test ON the AREA of 3:1 AND ON top adjacent to the EAST channel. Ive Asked Tony to put the 750B John Deere dozer ON the 3:1 SLOPE AND the AREA ABOVE ADJACENT to the ROAD. Bill Varos had compacted this material on the upper END yesterday. The compaction RESULTS were low 85.5 for both. I believe that 825B Catapillar

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
SEE SHT. 1 OF 6	NONE
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
SEE SHT 1 of 6	NONE

IT PERSONNEL ON SITE: DAVID A. WELCH

SIGNATURE David A Welch DATE: 8.19.93

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INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	8	19	93
	NO.	1	6	1
	SHEET	5	OF	6

FIELD ACTIVITY DAILY LOG

PROJECT NAME: PPG-HRANICA | PROJECT NO. 515455

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

has overworked the material, its dust. If the 750B dozer doesn't achieve the compaction, we made need to add water to bring up the moisture content to achieve 90% compaction (standard).

1400 START CONSTRUCTION OF EAST DRAINAGE CHANNEL AT TOP. Verified Depth of clay barrier cap along the East drainage channel to make sure we have 2' of cla. or better. Holes were dug along the alignment at 40' c/c. A total of 4 holes were dug for verification. Each of the holes exceeded the min of 2' of cla. cover. Once the thickness of cover was verified we used the John Deere 750B Dozer to cut a U notch along the alignment. The alignment of the drainage channel at the very top has been changed for ease of construction and more importantly safety. Anl Estabrook and I both agreed that the channel beginning point should stay the same and instead of going directly downslope over the steepest area that we would run accross the slope slightly, then turn down to meet the staked ℄ of channel. The Riprap will probably have to be hand placed along the ℄ of the channel about midway of 2.5:1 slope due to accessibility.

1500 Upper poetion of Drainage channel has been cut

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
SEE SHT. 1 OF 6	NONE
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
SEE SHT. 1 OF 6	NONE

IT PERSONNEL ON SITE: DAVID A. WEICK

SIGNATURE: David A Weick DATE: 8.1993

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG				
	DATE	8	19	93
	NO.	1	6	2
	SHEET	6	OF	6

OJECT NAME PPG HARANICA | PROJECT NO. 515423

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

IN AND WE ARE PRESENTLY SHAPING. IT SHOULD BE IN GOOD SHAPE AT THE TOP BY TOMORROW AFTERNOON. WROTE A VARIANCE FOR MOVING UP CHANNEL SEE ATTACHED

1500 APPROX 49 TRUCKS DUMPED CLAY ALONG THE FLAT PORTION OF THE COVER BARRIER, AT THE ACCESS ROAD, AND IN AREAS OF MINOR REGRADING. APPROX 735.1 YD^3 WAS PLACED FOR A TOTAL TO DATE OF 19,995 YD^3.

RECEIVED LAB TEST RESULTS FOR SAMPLES CL-8A, CL-8B CL-9, CL-10A AND CL-10B. ALL SAMPLES WERE CLASSIFIED AS GRAY CLAY. THE NEW MAX (DD) VALUE FOR COMPACTION IS (116.83) AVERAGE FOR 6 SAMPLES RECEIVED FROM TRIAD ENGINEERING.

1600 LEAVE SITE, TRUCKS HAVE STOPPED FOR AFTERNOON MINIOR REGRADING OF CLAY BARRIER CAP AND PREVENTIVE MAINTENANCE AND SEALING OF CLAY BARRIER IS BEING DONE BEFORE ERM PERSONNEL LEAVE THE SITE

WORK SHIFT
0600-1630
1 SITE MANAGER
1 FORMAN/OPERATOR
2 OPERATORS
1 TECHNICIAN
1 LABORER

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
SEE SHT. 1 OF	NONE
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
SEE SHT 1 OF	NONE

IT PERSONNEL ON SITE: DAVID A. WELCK

SIGNATURE David A Welck DATE: 8.19.93

MEMORANDUM
ERM-ENVIROCLEAN, INC.

FAX TRANSMITTAL MEMO
TO: Tom EBBERT
DEPT: PPG FAX #: 412-492-5377
FROM: Dave Guzik PHONE:
CO: ERM FAX #:
Post-it™ brand fax transmittal memo 7671
NO. OF PAGES 5

To: Tom Ebbert, PPG

From: Dave Guzik DAG

Date: 30 August 1993

Regarding: Hranica Weekly Project Status Report and Meeting Minutes

---

Meeting: Meeting No. 10
19 August 1993, 9:00AM

Attendees: Tom Ebbert (PPG)
Anne Estabrook (CH_2M Hill)
Tony Kessler (ERM)
Dave Guzik (ERM)
Dave Weick (IT)

Review and approval of the minutes of the previous meeting.

- No changes were noted regarding the minutes of the previous meeting.

Review of action items from previous meeting.

- Clay placement activities are continuing.
- Installation of the west stormwater collection ditch has been completed to the point where the ditch crosses the site haul road. Completion of the remaining section of the ditch will be performed upon completion of soil placement activities.
- As requested, ERM has provided an updated RA Work Schedule for this meeting (see attached).
- Closure of the 4 inactive monitoring wells located on the adjacent Pajer property is planned for the week of 23 August 1993.

Field observations, problems, conflicts.

- ERM will continue relations with the public and neighbors (e.g. dust control, prevention of speeding, and access issues). Watering and calcium application is continuing along Hranica Drive.
- Excess clay which has been pushed into the west stormwater collection ditch is to be removed as soon as possible.
- The construction requirements for the east stormwater collection ditch were discussed. It was agreed that a portion of the ditch be relocated to the south and

west due to the nature of the slope in portions of the original route. This decision was made based on constuctibility and safety issues.

Problems which may impede construction schedule and proposed corrective action.

- The availability of trucks to haul borrow materials from Snyder Associated Companies has been somewhat reduced by Snyder. ERM will contact Snyder's representatives to discuss increasing the amount of trucks to earlier levels.

Review of schedule and status of work.

- Work on Saturdays will continue at the discretion of ERM.

Work or testing accomplished since last meeting.

- ERM is continuing with the placement of the clay protective layer.
- The clay subgrade survey is continuing.
- Compaction tests and the collection of QA/QC field verification samples have been performed as required.
- Installation of the west stormwater collection ditch has been completed to the point where the ditch crosses the site haul road. Completion of the remaining section of the ditch will be performed upon completion of soil placement activities.

Rework items identified/completed since last meeting.

- Excess clay which has been pushed into the west stormwater collection ditch is to be removed as soon as possible.

Corrective measures and procedures to regain progress in accordance with project schedule.

- A 6-day per week work schedule will be maintained at the discretion of ERM.

Review of construction schedule including testing requirements and coordination requirements for the next two weeks.

- Clay placement activities will be completed and soil placement activities will commence.
- The placement of the soil cover layer along the southwestern property boundary will be completed to facilitate completion of the perimeter fence.

- The performance of compaction tests and the collection of QA/QC samples will continue.

- The closure of 4 inactive monitoring wells on the Pajer property is expected to be completed.

Revisions of schedule, if required.

- None required.

Review of submittal schedules; expedite as required.

- None at this time.

Maintenance of quality and safety standards.

- QA/QC verification testing and inspections will continue

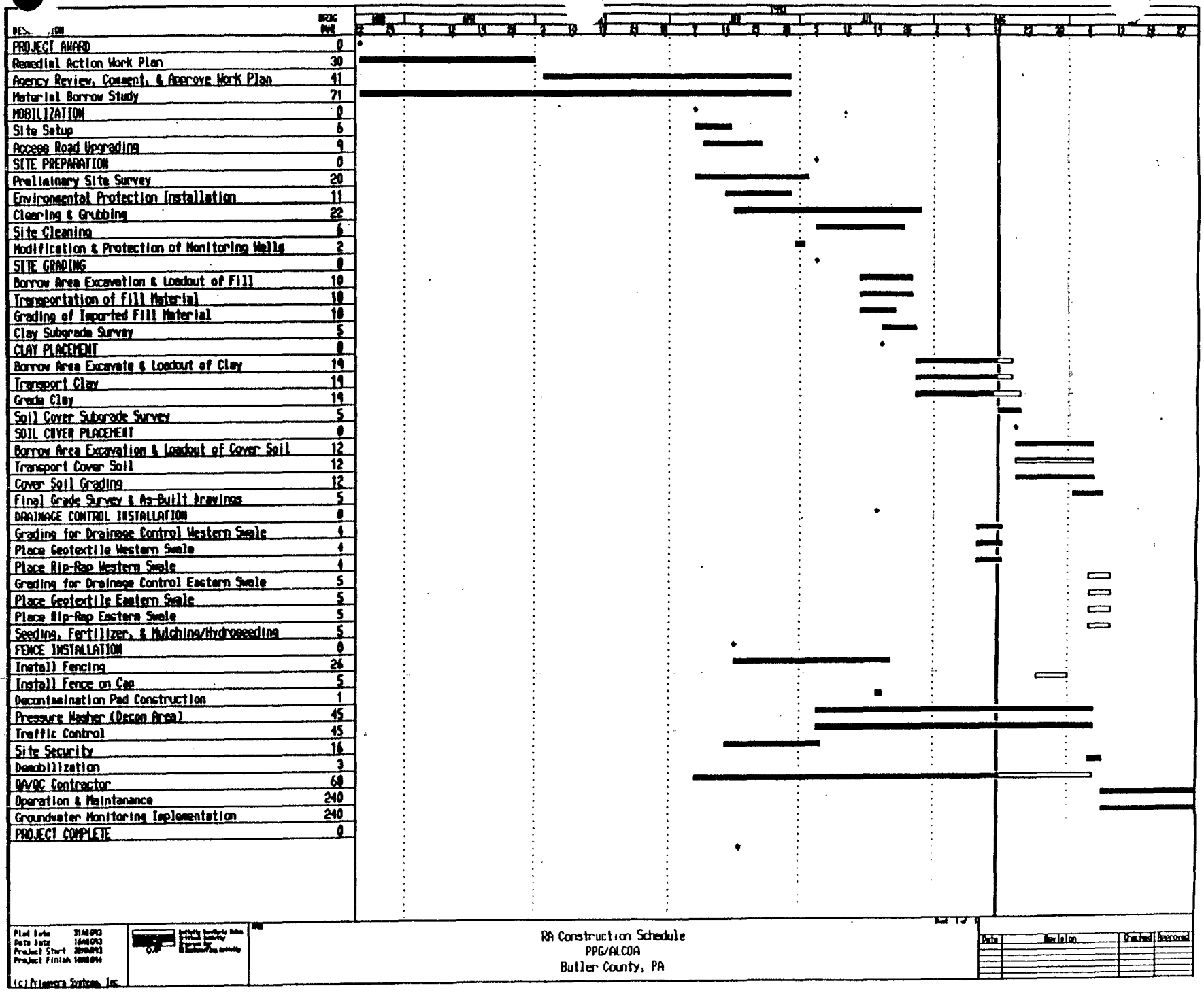
Pending changes or substitutions.

- Not applicable.

Other business.

- None at this time.

cc: Gary Crouth (ALCOA)
Garth Connor (USEPA)
Robert Kimball (PADER)
William Montgomery (IT)
Elizabeth Mikulis (CH_2M Hill)
Anne Estabrook (CH_2M Hill)
Stan Porfido
Mike Coia
Tony Kessler


DESCRIPTION
ORIG DUR
PROJECT AWARD 0
Remedial Action Work Plan 30
Agency Review, Consent, & Approve Work Plan 41
Material Borrow Study 71
MOBILIZATION 0
Site Setup 6
Access Road Upgrading 9
SITE PREPARATION 0
Preliminary Site Survey 20
Environmental Protection Installation 11
Clearing & Grubbing 22
Site Cleaning 6
Modification & Protection of Monitoring Wells 2
SITE GRADING 0
Borrow Area Excavation & Loadout of Fill 10
Transportation of Fill Material 10
Grading of Imported Fill Material 10
Clay Subgrade Survey 5
CLAY PLACEMENT 0
Borrow Area Excavate & Loadout of Clay 14
Transport Clay 14
Grade Clay 14
Soil Cover Subgrade Survey 5
SOIL COVER PLACEMENT 0
Borrow Area Excavation & Loadout of Cover Soil 12
Transport Cover Soil 12
Cover Soil Grading 12
Final Grade Survey & As-Built Drawings 5
DRAINAGE CONTROL INSTALLATION 0
Grading for Drainage Control Western Swale 4
Place Geotextile Western Swale 4
Place Rip-Rap Western Swale 4
Grading for Drainage Control Eastern Swale 5
Place Geotextile Eastern Swale 5
Place Rip-Rap Eastern Swale 5
Seeding, Fertilizer, & Mulching/Hydroseeding 5
FENCE INSTALLATION 0
Install Fencing 26
Install Fence on Cap 5
Decontamination Pad Construction 1
Pressure Washer (Decon Area) 45
Traffic Control 45
Site Security 16
Demobilization 3
QA/QC Contractor 60
Operation & Maintenance 240
Groundwater Monitoring Implementation 240
PROJECT COMPLETE 0
1988
1989
1990
1991
1992
1993
Plot Date 31AUG93
Data Date 16AUG93
Project Start 28MAR93
Project Finish 10AUG94
(c) Primavera Systems, Inc.
RA Construction Schedule
PPG/ALCOA
Butler County, PA
Date
Revision
Checked
Approved

The ERM Co.

Sample Chain of Custody

W.O.No.: 992-97

Project Name: Hyannis Landfill

Sampler: T. Kessler

ERM T.R. Number	Date	Time	COMP	GRAB	Sample Location	Number of Containers	ASTM D 2216 Moist. Cont.	ASTM D 4318 Atterberg Limits	ASTM D 422 Grain Size	ASTM D 2487 USCS Class.	ASTM D 698 Std. Proct.	Remarks
910660	19 Aug 93	3:10pm		X	Stn. 491+00 ± 94+50	(1) 5gl	X	X	X	X		CL-17
910661	"	3:15pm		X	Stn. 461+00 ± 96+00	(1) 5gl	X	X	X	X		CL-19
910662	"	3:20pm		X	Stn. 406+50 ± 96+00	(1) 5gl	X	X	X	X		CL-18A
910663	"	3:25pm		X	" " "	(1) 5gl					X	CL-18B

Sample Relinquished	Date	Time	Sample Received by:	Date	Time	Reason for Transfer
CL-17 (10660)			TEI	8-20-93	AM	LAB TESTING
CL-19 (10661)			TEI	8-20-93	AM	LAB TESTING
CL-18A (10662)			TEI	8-20-93	AM	LAB TESTING
CL-18B (10663)			TEI	8-20-93	AM	LAB TESTING

21900CH

COPIES White & Yellow copies accompany sample shipment to laboratory Yellow copy retained by laboratory White copy to be returned to ERM for files Pink copy retained by sampler Gold copy extra copy as req'd (warehouse)

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

CL-17
010660

1 Project W.O. 992-97

roject Name/Location
Hamilton Landfill
Carver, PA

2 Sample Concentration
☐ Low Concentration
☐ Medium Concentration

3 Ship to: IRM GWL
910 St Clair
PO Box 1029
Greensburg, PA 15601
Attn: John Kent

4 Sample Matrix
☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact
Sampler: T. Kessler
Project Manager: D. Grzik
Phone No. 772-1022

6 Shipping Information
(Name of Carrier) Trailer
(Date Shipped) 20 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
Moist Cont. ASTM D 2216	1	5gl.
Atterberg Limits " " 4318		
Grain Size " " 422		
Soil Class " " 2487		

8 Sample Location
Site 99/100 : 99+50

Date: 18 Aug 93
Time: 3:10pm

9 Sample Description
☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)
☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97	**2** Sample Concentration	CL-18A 010662
Project Name/Location: Homica Landfill, Sarver, PA	☐ Low Concentration ☐ Medium Concentration	**3** Ship to: TRIAD ENG Inc 918 St. Clair Way P.O. Box 1028 Greensburg, PA 15601 Attn: John Kent
4 Sample Matrix: ☐ Liquid ☒ Solid ☐ Other	**5** Sampling Personnel Contact Sampler: T. Kessler Project Manager: A Cuzzik Phone No. 772-1022	
6 Shipping Information (Name of Carrier) — P. Fedex (Date Shipped) 20 Aug 93 (Airbill Number)	**7** Specify Type of Analyses, Number of Containers, Approx. Volume	
8 Sample Location STA. 406+50 : 98+00 Date: 3:20 pm Time: 19 Aug 93	**9** Sample Description ☐ Surface Water ☒ Soil ☐ Ground Water ☐ Solid ☐ Leachate ☐ Other: ☐ Sediment	**10** Special Handling (e.g. Safety Procedures/Hazardous)

Analyses / Method Requested	No. of Bottles	Total Volume
Moist. Cont. ASTM D 2216	1	5 gl
Atterberg Limits " " 4318		
Grain Size " " 422		
Soil Class. " " 2487		

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

- ☒ Samples received intact
- ☐ Samples at 4 degrees (C)
- ☒ Samples not leaking
- ☒ Container numbers match as specified in Item 7
- ☒ Container tags match Chain of Custody
- ☐ Cooler received with Custody Seals intact
- ☐ Samples contained within plastic bags

Log-In Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

ERM

Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location
Hanian Landfill
Seven, PA

2 Sample Concentration
☐ Low Concentration
☐ Medium Concentration

CL-18D
010663

3 Ship to: TRIAD ENV C.
918 Sta Clair Way
P.O. Box 1024
Greensburg, PA 15601
Attn: John Kent

4 Sample Matrix
☐ Liquid ☒ Solid
☐ Other

5 Sampling Personnel Contact
Sampler: T. Kessler
Project Manager: D. Guzik
Phone No. 772-1022

6 Shipping Information
(Name of Carrier) P. Fuller
(Date Shipped) 20 Aug 93
(Airbill Number)

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
STD PAT ASMO 698	1	5gl.

8 Sample Location
SB. 43+50 : 98+00

Date: 19 Aug 93
Time: 3:25pm

9 Sample Description
☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)
☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☐ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

AR300615

ERM
Princeton Crossroads • 300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618 • (609) 895-0111

Traffic Report

1 Project W.O. 992-97

Project Name/Location

Monica Landfill
Sarver, PA

4 Sample Matrix

☐ Liquid ☒ Solid
☐ Other

2 Sample Concentration

☐ Low Concentration
☐ Medium Concentration

CL-19
010661

5 Sampling Personnel Contact

Sampler: T. Kessler
Project Manager: D. Gurnik
Phone No. 772-1022

3 Ship to: TRIAD ENG Co
9th ST Clair Way
P.O. Box 1828
Greensburg, PA 15601
Attn: John Conti

6 Shipping Information

(Name of Carrier) Federal
(Date Shipped) 20 Aug 97
(Airbill Number)

8 Sample Location

Sta. 491+00 - 96+00

Date: 19 Aug 97
Time: 3:15 pm

7 Specify Type of Analyses, Number of Containers, Approx. Volume

Analyses / Method Requested	No. of Bottles	Total Volume
M.S. Cont. ASTM D 2216	1	5gl
Atterberg Limits - 4.3.16		
Grain Size - 422		
Soil Class - 2487		

9 Sample Description

☐ Surface Water ☒ Soil
☐ Ground Water ☐ Solid
☐ Leachate ☐ Other:
☐ Sediment

10 Special Handling (e.g. Safety Procedures/Hazardous)

Additional comments: (Specify data package, rush work, special detection limits, etc.)

11 Condition of Samples Received (to be completed by Laboratory Log-in.)

☒ Samples received intact
☐ Samples at 4 degrees (C)
☒ Samples not leaking
☒ Container numbers match as specified in Item 7
☒ Container tags match Chain of Custody
☐ Cooler received with Custody Seals intact
☐ Samples contained within plastic bags

Log-in Person's Signature

Copies: White & Yellow copies accompany sample shipment to laboratory. Yellow copy retained by laboratory. White copy to be returned to ERM for files. Pink copy retained by sampler. Gold copy extra copy as needed.

Field Moisture-Density Test Results

Date 8.1993

Project Name PPG TARANTCA

Project No. 515428

Borrow Area Synder Associated Companies, Inc

Maximum Dry Density (pcf) 115.8

Optimum Moisture (%) 15.1

Test No.	Approximate Location		Depth	In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East						
CBL-107	9720	49025	6"	113.5	98.0	10.5	-4.6	CL
CBL-107A	9750	49090	6"	112.0	96.7	12.6	-2.5	CL
CBL-108	9640	49095	6"	111.6	96.3	12.1	-3.0	CL
CBL-109	9630	49040	6"	112.9	97.4	10.9	-4.2	CL
CBL-110	9525	48980	6"	105.7	91.3	12.3	-7.1	CL
CBL-111	9880	49070	12"	115.7	99.8	13.5	-1.6	CL
CBL-112	9880	49070	6"	117.5	101.4	12.7	-2.4	CL
CBL-113	9955	49115	12"	112.1	96.8	12.7	-2.4	CL
CBL-114	9955	49115	6"	114.1	98.5	12.4	-2.7	CL
CBL-115	9925	49140	12"	118.5	102.3	13.0	-2.1	CL
CBL-116	9925	49140	6"	123.7	106.7	12.7	-2.4	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-19-93

Report No.: 22 PAGE 1 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 586 DS 3117

Proctor Values: ___ modified X standard Opt. Moisture ___ density (Y) 115.8 + 111.5 AVG 115.8

% Moisture Deviation Permitted ___

Test #	CBL 107	CBL 107A	CBL 108	CBL 109
Location	N 9720 E 49025	N 9750 E 49090	N 9640 E 49095	N 9630 E 49040
Density Count (DC)	2539	2495	2560	2554
Moisture Count (MC)	134	155	149	138
Wet Density (WD)	125.5	126.1	125.0	125.2
Dry Density (DD)	113.5	112.0	111.6	112.9
Moisture (M)	11.9	14.1	13.5	12.3
Percent Moisture (%M)	10.5	12.6	12.1	10.9
Percent Compaction (DD/Y)	98.0	96.7	96.3	97.4
Pass/Fail (P or F)	P	P	P	P
	6"	6"	6"	6"

Notes: ___

Client Name & Address: ERM

Soil Lab Results Furnished by: TONY KESSLER

Compaction Test Performed by: PAUL NEFF (Name) 058135 (Cert. #)

Signature 0800618 Date 8-19-93

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA - LANDFILL

Project #: 93-003

Date: 8-19-93

Report No.: 22 PAGE 2 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 586 DS 3117

Proctor Values: ____ modified X standard Opt. Moisture _____ density (Y) 115.8

% Moisture Deviation Permitted _____

Test #	CBL 110	CBL 111	CBL 112	CBL 113
Location	N 9525 E 48980	N 9880 E 49070	N 9880 E 49070	N 9955 E 49115
Density Count (DC)	2968	447	2160	531
Moisture Count (MC)	144	170	163	156
Wet Density (WD)	118.7	131.3	132.4	126.3
Dry Density (DD)	106.7	115.7	117.5	112.1
Moisture (M)	13.0	15.7	14.9	14.2
Percent Moisture (%M)	12.3	13.5	12.7	12.7
Percent Compaction (DD/Y)	91.3	99.8	101.4	96.8
Pass/Fail (P or F)	P	P	P	P
	6"	12"	6"	12"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF 058155
Name Cert. #

Paul R Neff 8-19-93
Signature PA 5000605 Date

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-19-93

Report No.: 22 PAGE 3 OF 3

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 586 DS 3117

Proctor Values: ____ modified X standard Opt. Moisture _____ density (Y) 115.8

% Moisture Deviation Permitted _____

Test #	CBL 114	CBL 115	CBL 116	
Location	N9955 E49115	N9925 E49140	N9925 E49140	
Density Count (DC)	2379	411	1849	
Moisture Count (MC)	155	167	170	
Wet Density (WD)	128.2	133.9	139.3	
Dry Density (DD)	114.1	118.5	123.7	
Moisture (M)	14.1	15.4	15.7	
Percent Moisture (%M)	12.4	13.0	12.7	
Percent Compaction (DD/Y)	98.5	102.3	106.7	
Pass/Fail (P or F)	P	P	P	
	6"	12"	6"	

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF 058155
Name Cert. #

Paul J Neff 000620 8-19-93
Signature Date

32-A • 86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8-17-95 | NO. 164 | SHEET 2 OF

PROJECT NAME EPG HALAND CA | PROJECT NO. 515122

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

Continue loading from truck dumpers and monitor dust at Halaand Drive. Dust control is accomplished by a 400 gal on keetz water truck towed by a chevy pickup truck. Dust control shouldn't be a problem today since there has been some intermittent steady rain. The weather forecast heavy showers this morning or by early afternoon. We are taken precautions by sealing areas that we are not currently working on.

Ive asked Ken Kelly (ERM) to make sure the drainage channel drains so as not to pond water where we have pushed clay from the cut drainage channel.

Paul Neff arrived to do compaction test for the end the access road area, top of 3:1 slope adjacent to ditch and 2.5:1 slope. I've already marked the locations with red pin flags and noted the depth of the single test and 6"/12" for (2) test at the same location. I've also given him the new value for the max. dry density by adding the two new proctors CL-8E and CL-10B. The average (DD) value is 116.8. These results were received late yesterday afternoon. Approx. 3 tests were done at the access road area., 6 along the top

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
See sht 1 of 3	NONE

IT PERSONNEL ON SITE: David Linell

SIGNATURE David Linell DATE: 8-19-95

AR300621

32-A-T 86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 5 23 92 | NO. 1 6 5 | SHEET 3 OF 3

PROJECT NAME PPG HARMICA | PROJECT NO. 5152.2

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

AT 4 SLOPE, AND 3 ON THE FLAT-SLOPE TRANSITION AREA.

1000 PAUL Neff completed 20 COMPACTION test All have PASSED (see ~~ATTACHED~~ results).

1130 Ken Kelly AND Tony Kessler said that the trucks will be delivering their last load for the day. Ken is going to just spot the clay for now and spread on Monday. He is continuing to track the slopes in with the John Deere 750B Dozer. They should be complete by 1400 today. All FLAT AREAS have been sealed with the VIBRATORY Roller

1230 LEAVE Site, for MONROEVILLE (Exit 6) to take care of WORK AND scheduling of JOB for MONDAY MORNING

A total of 5 ERM-ENVIROCLEAN, INC. PERSONNEL ARE ON SITE including - 1 Site MANAGER
2 OPERATORS
1 TECHNICIAN
1 LABORER

WORK shift
0600 - 1400

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
NONE	NONE
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
SEE SHEET 1 OF 3	NONE

IT PERSONNEL ON SITE: DAVID A. WEICK

SIGNATURE David A Weick DATE: 8-20-92

AR300622

IT A - 86

Construction Inspection
Clay Barrier Layer

Field Form

Project Name PPG Tarranica
Project No. 515428
Unit No. —
Borrow Area Snyder Associates Company Inc,

Date 8.20.93
Inspected by David A. Weick
Max. Dry Density (pcf) 116.8
Opt. Moisture (%) 14.66

Compaction Equipment Catapillar 825 Sheepsfoot compactor/ John Deere 750B D
Soil Description Gray Clay
Weather Hazy Hot, Humid High 88°
Volume and Location of Material Placed During Shift 735 yd^3

(Provide explanatory notes if the answer to any of the following questions is "no." Include any remedial steps required.)

	YES/NO	NOTE NO.
• Is the fill free of irreducible material greater than 2 inches in any dimension?	Yes	
• Is the fill free of any visible organic substance?	Yes	
• Is the surface of the area to be filled acceptable (not desiccated or excessively wet)?	Yes	
• Is the lift less than 8 inches loose thickness (to achieve 6-inch compacted thickness)?	Yes	
• Has the finished surface been rolled with a smooth drum roller?	Yes	

ONE FORM PER SHIFT
WHEN THIS WORK IS BEING DONE

NOTES:

Field Moisture-Density Test Results

Date 8·20·93

Project Name PPG HARRANICA

Project No. 515428

Borrow Area Synder Associates Companies, Inc

Maximum Dry Density (pcf) 116.8

Optimum Moisture (%) 14.7

Test No.	Approximate Location			In Situ Dry Density (pcf)	Percent Compaction	In Situ Water Content (Wc) (%)	Percent Wc Variation	Soil Description
	North	East	Elevation					
CBL-117	9450	48910	6"	112.8	96.5	12.8	-1.9	CL
CBL-118	9425	48985	12"	114.5	98.0	11.6	-3.1	CL
CBL-119	9425	48985	6"	110.8	94.8	12.3	-2.4	CL
CBL-120	9500	48945	12"	122.9	105.2	8.6	-6.1	CL
CBL-121	9500	48945	6"	116.8	100.0	9.2	-5.5	CL
CBL-122	9570	48950	12"	118.4	101.4	10.1	-4.6	CL
CBL-123	9570	48950	6"	114.7	98.2	11.1	-3.6	CL
CBL-124	9625	48940	12"	121.6	104.0	11.4	-3.3	CL
CBL-125	9625	48940	6"	117.0	100.1	11.2	-3.5	CL
CBL-126	9690	48925	12"	118.1	101.1	10.2	-4.5	CL
CBL-127	9690	48925	6"	114.0	97.5	10.8	-3.9	CL
CBL-128	9650	48935	12"	115.7	99.0	10.8	-3.9	CL
CBL-129	9650	48935	6"	110.6	94.7	11.3	-3.41	CL
CBL-130	9700	48930	12"	121.6	104.1	11.2	-3.5	CL
CBL-131	9750	48945	6"	119.0	101.8	11.7	-3.0	CL
CBL-132	9770	48960	12"	118.3	101.3	10.2	-4.5	CL
CBL-133	9770	48960	6"	114.1	97.6	10.9	-3.8	CL
CBL-134	9580	48955	6"	105.5	90.3	10.2	-4.5	CL
CBL-135	9550	49020	6"	112.0	95.8	13.1	-1.6	CL
CBL-136	9500	49015	6"	106.5	91.1	16.0	+2.7	CL

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-20-93

Report No.: 23 PAGE 1 OF 5

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 575 DS 3126

Proctor Values: ____ modified ✓ standard Opt. Moisture ____ density (Y) 116.8

% Moisture Deviation Permitted ____

Test #	CBL 117	CBL 118	CBL 119	CBL 120
Location	N 9450 E 48910	N 9425 E 48985	N 9425 E 48985	N 9500 E 48945
Density Count (DC)	2440	507	2607	421
Moisture Count (MC)	155	144	147	119
Wet Density (WD)	127.2	127.8	124.4	133.5
Dry Density (DD)	112.8	114.5	110.8	122.9
Moisture (M)	14.4	13.3	13.6	10.6
Percent Moisture (%M)	12.8	11.6	12.3	8.6
Percent Compaction (DD/Y)	96.5	98.0	94.8	105.2
Pass/Fail (P or F)	P	P	P	P
	6"	12"	6"	12"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: Tony Kessler / Dave

Compaction Test Performed by: Paul Neff (Name) 058155 (Cert. #)

Paul Neff (Signature) 8-20-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA · LANDFILL

Project #: 93-003

Date: 8-20-93

Report No.: 23 PAGE 2 OF 5

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 575 DS 3126

Proctor Values: ___ modified X standard Opt. Moisture ___ density (Y) 116.8

% Moisture Deviation Permitted ___

Test #	CBL 121	CBL 122	CBL 123	CBL 124
Location	N 9500 E 48945	N 9570 E 48950	N 9570 E 48950	N 9625 E 48940
Density Count (DC)	2433	465	2430	393
Moisture Count (MC)	120	132	139	150
Wet Density (WD)	127.5	130.4	127.5	135.5
Dry Density (DD)	116.8	118.4	114.7	121.6
Moisture (M)	10.7	12.0	12.7	13.9
Percent Moisture (%M)	9.2	10.1	11.1	11.4
Percent Compaction (DD/Y)	100.00	101.4	98.2	104.0
Pass/Fail (P or F)	P	P	P	P
	6"	12"	6"	12"

Notes: ___

Client Name & Address: ERM

Soil Lab Results Furnished by: ___

Compaction Test Performed by: Paul WEFF (Name) 058155 (Cert. #)

Paul J Weff (Signature) AR300626 8-20-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-20-93

Report No.: 23 PAGE 3 OF 6

Gauge #: 17759 Standard Counts: MS 575 DS 3126

Proctor Values: ____ modified X standard Opt. Moisture ____ density (Y) 116.8

% Moisture Deviation Permitted ____

Test #	CBL125	CBL126	CBL127	CBL128
Location	N9625 E48940	N9690 E48925	N9690 E48925	N9650 E48935
Density Count (DC)	2287	471	2500	501
Moisture Count (MC)	143	132	135	137
Wet Density (WD)	130.1	130.0	126.3	128.2
Dry Density (DD)	114.0	118.1	114.0	115.7
Moisture (M)	13.1	12.0	12.3	12.5
Percent Moisture (%M)	11.2	10.2	10.8	10.8
Percent Compaction (DD/Y)	100.1	101.1	97.5	99.0
Pass/Fail (P or F)	P	P	P	P
	6"	12"	6"	12"

Notes: ____

Client Name & Address: ERM

Soil Lab Results Furnished by: ____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Signature 8-20-93 (Date)

AR300627

CERTIFIED

NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA · LANDFILL

Project #: 93-003

Date: 8-20-93

Report No.: 23 PAGE 1 OF 5

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 575 DS 3126

Proctor Values: ___ modified X standard Opt. Moisture ____ density (Y) 116.8

% Moisture Deviation Permitted _____

Test #	CBL 129	CBL 130	CBL 131	CBL 132
Location	N 9650 E 48935	N 9700 E 48930	N 9750 E 48945 [redacted]	N 9770 E 48960
Density Count (DC)	2686	395	2146	465
Moisture Count (MC)	137	148	150	133
Wet Density (WD)	123.1	135.3	132.9	130.4
Dry Density (DD)	110.6	121.6	119.0	118.3
Moisture (M)	12.5	13.7	13.9	12.1
Percent Moisture (%M)	11.3	11.2	11.7	10.2
Percent Compaction (DD/Y)	94.7	104.1	101.8	101.3
Pass/Fail (P or F)	P	P	P	P
	[redacted] 6"	12"	6"	12"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058155 (Cert. #)

Paul J Neff (Signature) 8-20-93 (Date)

CERTIFIED
NUCLEAR DENSOMETER COMPACTION TEST DATA

Project: ERM HRANICA LANDFILL

Project #: 93-003

Date: 8-20-93

Report No.: 23 PAGE #5 OF 5

Pedersen & Pedersen, Inc.
R.D. #3, Box 269, Route 8
Valencia PA 16059
Phone: 412-898-3300
Fax: 412-898-2908

Gauge #: 17759 Standard Counts: MS 575 DS 3126

Proctor Values: ____ modified X standard Opt. Moisture _____ density (Y) 116.8

% Moisture Deviation Permitted _____

Test #	CBL 133	CBL 134 (1250)	CBL 135 (1240)	CBL 136 (1250)
Location	N 9470 E 48960	N 9580 E 48955	9550 49020	N 9500 E 49015
Density Count (DC)	2488	3163	2473	2646
Moisture Count (MC)	136	120	157	180
Wet Density (WD)	126.5	116.2	126.6	123.6
Dry Density (DD)	114.1	105.5	112.0	106.5
Moisture (M)	12.4	10.7	14.6	17.1
Percent Moisture (%M)	10.9	10.2	13.1	16.0
Percent Compaction (DD/Y)	97.6	90.3	95.8	91.1
Pass/Fail (P or F)	P	P	P	P
	6"	6"	6"	6"

Notes: _____

Client Name & Address: ERM

Soil Lab Results Furnished by: _____

Compaction Test Performed by: Paul NEFF (Name) 058135 (Cert. #)

Paul J Neff (Signature) 8-20-93 (Date)

INTERNATIONAL TECHNOLOGY CORPORATION

DAILY LOG	DATE	03	23	93
	NO.	1	6	6
	SHEET	1	OF	3

FIELD ACTIVITY DAILY LOG

PROJECT NAME	PPG-HRANICA	PROJECT NO.	515423
FIELD ACTIVITY SUBJECT:	REMEDIAL ACTION QA/QC		

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

0730 Arrive at site; inspect field operations — ERM-Environ, Inc personnel performing the following work activities:

1) Final grading of 2' clay barrier layer with either cutting of high areas or placement and compaction of work areas requiring fill (clay material to be tied by the field references (ie, 50'x50' grid); John Deere 750B dozer is used to either cut or fill areas requiring grading by slowly tracking in the newly placed material to achieve the desired level of compaction; based upon inspection all areas complete (except the area from the high point to the top of the 3H:1V slope and the entire northern lower portion of the protective cover system, the remaining areas (i.e., south of the high point and the entire slope area (3H:1V, 2.5H:1V and east of east surface water collection ditch) are substantially complete and would be ready for soil cover placement after some minor dressing up; the rationale for determining clay placement finished is based on two factors — 1) verify all areas will drain properly and 2) confirm that the 2' clay barrier layer is in place as verified by the field references which have the clay grade delineated on each grade stake and must be brought to that level at a minimum; clay material is being removed from overfill areas (ie base of clean soil stockpile) and being utilized for filling low areas; however it appears that additional clay will be required to meet grade requirements discuss with Foreman Ken Kelly and Site Manager Tony Kessler who plan to split between clay and soil cover a few days this week to [illegible]

For additional inspection information, see attached Clay Barrier Layer Construction Inspection Log

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS. Instruct ERM-Environ to remove ≈50' of the western surface water collection ditch and reinstall
WEATHER CONDITIONS: Site Condition - Dry Hazy, hot and humid High/Low Temp. - 89/60°F Precipitation - Weekend - 0.3" Today - None	IMPORTANT TELEPHONE CALLS: None
IT PERSONNEL ON SITE: William A Montgomery	
SIGNATURE: William A Montgomery	DATE: 3/23/93

AR300630

32°A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 23 93 | NO. 1 6 7 | SHEET 2 OF 3

PROJECT NAME PPG-HANNA | PROJECT NO. 515428

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

2) Demobilized Caterpillar 815B sheepsfoot compactor - remaining compaction will be performed using the John Deere 750B dozer and CAT CS-553 vibratory smooth drum roller; CAT 815B sheepsfoot compactor was removed from site through main site access gate and driven to base of hill along Hanna Drive where Purcell Equipment Co. prepared for transport and loaded

3) Continued manual removal of clay from upper 100' of western surface water collection ditch which was placed there during clay placement and compaction operations performed last week; CAT 815B sheepsfoot compactor operator, Bill Varos, although a qualified and for the most part, good operator, continue to be negligent at times was responsible for this even after repeated reminders to keep his distance and operate carefully in this vicinity - another act of negligence was covering over silt fence at numerous locations; Bill must be told exactly what his assignment is and monitored closely - this with Site Manager, Tony Kessler

4) Upon further inspection, determined that manual removal of clay from riprap along the upper 50' of western surface water collection ditch based upon performance to date therefore instructed Foreman, Ken Kelly to remove this section since is by definitely the worst area with more than half the ditch filled in with 1-2' of clay - the remaining 50' is not as bad and should be able to be restored with manual removal; supervised removal and replacement

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3
WEATHER CONDITIONS:	**IMPORTANT TELEPHONE CALLS:**
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A Montgomery AR300631 DATE: 8/23/93

327A-7-86

INTERNATIONAL TECHNOLOGY CORPORATION

FIELD ACTIVITY DAILY LOG

DAILY LOG | DATE 8 23 93 | NO. 1 6 8 | SHEET 3 OF 3

PROJECT NAME PPG-HRANICA | PROJECT NO. 515429

FIELD ACTIVITY SUBJECT: REMEDIAL ACTION QA/QC

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS:

which consisted of removal, grading, and proposing the John Deere 544 loader and dumping in the truck turnaround using the 225 C backhoe, trimming ditch alignment to maintain dimensions (2' x 3' depth w/ [illegible] manual placement of one layer of geotextile and 9" inches of riprap over the entire ditch surface using the case 580 backhoe; verified by inspection that all requirements were satisfied

Note that the traffic and dust control programs were not implemented today since no trucks were hauling material from Snyder Associated Co., Inc

Infomed by ERM-Envirocleen, Site Manager Tony Kessler that the U.S Environmental Protection Agency had given verbal approval to ERM-Envirocleen, Inc to remove the personel decontamination [illegible] from the site as scheduled on 8/27/93 and to leave in place the equipment/truck decontamination pad - I have some concerns about leaving the deem pad

5) Paul Neff, technicia from Pedersen & Pedersen on site to conduct in-place moisture/density verification testing of various areas of the 2' plan barrier layer, observed instrument calibration and instructed Paul to test areas on list left by D Ueick; received new Standard Proctor values midmorning therefore updated value from 116.3 pcf to 118.2 pcf; a total of 21 in-place moisture/density test were performed with each exceeding 90% of the Standard Proctor Maximum Dry Density; for details see attached

A total of 6 ERM-Envirocleen, Inc personnel on site for 0600-1530 shift including 1 Site [illegible]

VISITORS ON SITE:	CHANGES FROM PLANS AND SPECIFICATIONS, AND OTHER SPECIAL ORDERS AND IMPORTANT DECISIONS.
See sheet 1 of 3	See sheet 1 of 3

1 Foreman
2 [illegible]
1 [illegible]
1 Laborer

WEATHER CONDITIONS:	IMPORTANT TELEPHONE CALLS:
See sheet 1 of 3	See sheet 1 of 3

IT PERSONNEL ON SITE: William A Montgomery

SIGNATURE William A. Montgomery DATE: 8/23/93

AR300632

327A-7 86

RECORD OF TECHNICAL CHANGE

Technical Change No. 005
Project/Job No. PPG-HRANKA
Project/Job Name 515428
Phase/Task _____

Page 1 of 1
Date 8/23/93

The following technical changes (including justification) are requested by:

Anthony Kessler (Name) Site Manager (Title)

Variance to alignment of eastern surface water collection ditch consisting of slightly skewing segment of eastern surface water collection ditch along the steep slope to address safety and constructability concerns.

The project time will be (Increased)(Decreased)(Unchanged) by approximately 0 days

Applicable Project-Specific Document(s): Final Remedial Design Plan, FT - Febrery 1993
Sheet 6 of Final Remedial Design Drawings

CC:

Approved By: _____ Date _____
(Project Manager)

William A. Montgomery Date 8/23
(Quality Assurance Officer)

Client Notified Yes ✓ No ___ Date _____

Contract Change Order Required Yes ___ No ✓

AR300633 Contract Change Order No. _____