932001

REVISED IRM COMPLETION REPORT

FOR

CC METALS and ALLOYS, INC.
Witmer Road
Town of Niagara, New York

Volume III of III

Submitted to:

New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Attn: Regional Environmental Remediation Engineer
Region 9

LAN
LAN ASSOCIATES INC
ENVIRONMENTAL AND FACILITIES ENGINEERING
66 CUNA STREET ■ ST. AUGUSTINE, FL 32084-3619
904-824-6999 FAX ■ 904-824-0726

Admin Record

REVISED IRM COMPLETION REPORT

FOR

CC METALS and ALLOYS, INC.
Witmer Road
Town of Niagara, New York

Volume III of III

RECEIVED
NOV 22 1999
NYSDEC - REG. 9
FOIL
REL UNREL

Submitted to:

New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Attn: Regional Environmental Remediation Engineer
Region 9

Prepared by:

LAN Associates, Inc.
66 Cuna Street
St. Augustine, FL 32084
on behalf of
CC Metals and Alloys, Inc.

© LAN Associates, Inc.

LAN Ref. #2.3269.22
November 11, 1999

LAN
LAN ASSOCIATES INC
ENGINEERING • PLANNING • ARCHITECTURE • SURVEYING
66 CUNA STREET • ST. AUGUSTINE, FL 32084-3619
904-824-6999 FAX • 904-824-0726

List of Appendices

Volume III of III

Appendix	Title
I	Documentation of Hazardous Waste Disposal
J	Documentation of Non-Hazardous Waste Disposal
K	GZA Report
L	Baghouse Dust and Surface Soil Laboratory Results
M	Initial Lead Assessment Report
N	Phase II Site Screening Test Pit Logs
O	Phase II Site Screening Test Pit Laboratory Results
P	Green Environmental Report
Q	Air Monitoring Results

Appendix I

Documentation of Hazardous Waste Disposal

2.37 9.2.C
Hand delivered
by Scott Pfohl
10/14/98

SLC Constructors, Inc.

FIELD CHANGE ORDER AUTHORIZATION

Job No. 98027 Job Name SKW Date Work Performed

SLC CONSTRUCTORS INC (SLC) 295 MILL ST. LOCKPORT NY 14094
Work Done By Address

LAW ASSOCIATES - MR SKIP HUTTON
Work Authorized By Address

Description of Work Performed:

MOBILIZE, SPOT, RENTAL, HAUL & DISPOSAL OF HAZARDOUS WASTE

Number	Craft	ST Hrs	OT Hrs	Rate	Tota
N/A					

Other Charges, Equipment:	ST Hrs	OT Hrs	Rate
SPOT ROLLOFF - $350.00/EACH			
RENTAL - $15.00/DAY/EACH - DATED ON-SITE.			
HAUL ROLLOFF - $350.00/EACH			
Material & Supplies			
PER TON DISPOSAL - 87.00/TON			

ARRIVALS:	DEPARTURES	DAYS ON SITE
(3) - 8/6/98	(2) 10-7-98	= 62
(1) - 8/7/98	(3) 10-6-98	= 61
(1) - 8/13/98		

61 days for 3 Rolloffs = $2745.00
62 " " 2 " = $1860.00

How Many Tons?? Documentation Needed

ALL COSTS WERE APPROVED BY LAW ASSC. ON AUGUST 5, 1998. VIA TELEPHONE.
PLUS ALL APPLICABLE TAXES

SLC CONSTRUCTORS INC. (SLC)
Extra Work Done By

SCOTT PFOHL SLC CONSTRUCTORS INC.
Supervisor Company Name

Supervisor Company Name

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

29256

30 Cubic Yards

814494529 Receipt #

PX9627 New York Trailer License Plate # and State

CJ2904 Profile #

Service Req. #

PRICE Transporter Name

3800/3 Permit #

Transpo/Trailer/Roll-off #

Jerry Gregg Driver's Name

SKW Generator

79680, 1 B 6 2

10:19

6/98

TARE → 39000

WEIGHT → 40680

Scheduled Arrival: Date Time

Actual Arrival: Date 933 Time In 11C Time Out 170.05 TONS 20.34

Arrived during Blackout? Y / N Notified DEC? Y / N

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

Receiving: Initials Comments

☐ Bulk to Landfill ☐ Roll-off Box ☐ Flatbed ☒ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In | Time Out | Initials | Comments

Stabilization
Time In | Time Out | Initials | Gross Wt. | Comments

Landfill
Time In | Time Out | Initials | Comments

Other
Time In | Time Out | Initials | Comments

Truck Wash
Time In | Time Out | Signature (NO Initials) | Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe driving practices

_____ Other (specify)

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or dataplate

_____ Overweight upon arrival

Driver's Comments

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

29293

Cubic Yards

81494576 — Receipt #
9X9622 NY — Trailer License Plate # and State
59780 LB G 2
13:31
10/06/98
CJ2994 — Profile #
Service Req. #
Permit #
TRICK — Transporter Name
3806-2015 — Tractor/Trailer/Roll-off #
JERRY GREGG — Driver's Name
SE — Generator
1405
39000
20780P

Scheduled Arrival: Date ____ Time ____

Actual Arrival: Date ____ Time In 1318

10.39 TONS

Arrived during Blackout? Y / N Notified DI

Initials ____ Comments ____

☐ Leaker ☐ Permit Violation ☐ Placarding/

☐ Other (specify) ____

☐ Bulk to Landfill ☐ No wet tins ☐ Flatbed ☒ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In ____ Time Out ____ Initials ____ Comments ____

Stabilization
Time In ____ Time Out ____ Initials ____ Gross Wt. ____ Comments ____

Landfill
Time In ____ Time Out ____ Initials ____ Comments ____

Other
Time In ____ Time Out ____ Initials ____ Comments ____

Truck Wash
Time In ____ Time Out ____ Signature (NO Initials) ____ Comments ____

Facility Personnel (please initial)

____ Smoking or eating in prohibited areas
____ Failure to obey instructions of facility personnel
____ Failure to wear appropriate PPE
____ Unsafe driving practices
____ Other (specify) ____

____ Leaving truck unattended
____ Failure to display overweight flag
____ Improper tarping or dataplin
____ Overweight upon arrival

Driver's Comments ____

Security Guard Initials: ____
(Indicating receipt of Wash Bay pass, if necessary)

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

29311

30
Cubic Yards

84520 LB 6 1

81494579
Receipt #

PX9627 New York
Trailer Licenses Plate & and State

CI
Service Req. #
Profile #

PRICE
Transporter Name

Jerry Cypress
Driver's Name

12.76
TONS

16:20
10/06/98
1659 39000
25520

Scheduled Arrival: ____ Date

Actual Arrival: ____ Date ____ Time In ____ Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify) ____

Receiving: ____ Initials ____ Comments

☐ Bulk to Landfill ☐ No vent line ☐ Flatbed ☐ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In ____ Time Out ____ Initials ____ Comments ____

Stabilization
Time In ____ Time Out ____ Initials ____ Gross Wt. ____ Comments ____

Landfill
Time In ____ Time Out ____ Initials ____ Comments ____

Other
Time In ____ Time Out ____ Initials ____ Comments ____

Truck Wash
Time In ____ Time Out ____ Signature (NO Initials) ____ Comments ____

Facility Personnel (please initial)

____ Smoking or eating in prohibited areas
____ Failure to obey instructions of facility personnel
____ Failure to wear appropriate PPE
____ Unsafe driving practices
____ Other (specify) ____

____ Leaving truck unattended
____ Failure to display overweight flag
____ Improper tarping or dunnpin
____ Overweight upon arrival

Driver's Comments ____

Security Guard Initials: ____
(Indicating receipt of Wash Bay pass, if necessary)

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

29417

30 Cubic Yards

21 30 9/2

Receipt # 1494697

Trailer License Plate # and State PD 1949 N.Y.

Service Req. # CL 2944 Profile #

Permit #

Transporter Name HAZMAT

Tractor/Trailer/Pup-off # RTL-2 1R3231RT

Driver's Name GENE WASKIEWICZ

Generator SKW

81280 LB 6 I

13:04

10/07/98

1405 38000

43280#

Scheduled Arrival: Date Time

Actual Arrival: Date 10-7-98 Time In 1135 Time Out 208

Arrived during Blackout? Y / N Notified DEC Y / N

☑ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

Receiving: Initials Comments

☐ Bulk to Landfill ☐ No west line ☐ Flatbed ☒ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory Time In Comments

Stabilization Time In 21.64 TONS. Gross Wt. Comments

Landfill Time In Time Out Comments

Other Time In Time Out Initials Comments

Truck Wash Time In Time Out Signature (NO Initials) Comments

Facility Personnel (please initial)

_____ Smoking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe delivery practices

_____ Other (specify)

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or dataprin

_____ Overweight upon arrival

Driver's Comments

Security Guard Initials: _____
(Indicating receipt of Wash Bay pass, if necessary)

Transporter Log

CWM Chemical Services, Inc.
Model City, NY

29406

20
Cubic Yards

814944677
Receipt #

9X9627 - NY
Trailer License Plate # and State

CJ2944
Profile #

Service Req. #

TRICE
Transporter Name

3780-R2996RT
Permit #
Tractor/Trailer/Roll-off #

J. CROSS
Driver's Name

SKW
Generator

82700 LB 6 2

10:56

10/07/98

12 15 39000 (E)
43700 P

Scheduled Arrival: Date Time

Actual Arrival: Date 10:30 Time In 12:20P Time Out

Arrived during Blackout? Y / N Notified DEC? Y / N

☐ Leaker ☐ Permit Violation ☐ Placarding/Veh. I.D. Violation

☐ Other (specify)

Receiving: Initials Comments

☐ Bulk to Landfill ☐ No wait time ☐ Flatbed ☒ Stabilization ☐ Drums ☐ Tanker ☐ Transformers

Laboratory
Time In Time Out Initials Comments

Stabilization
Time In Time Out Initials

Landfill
Time In Time Out Initials

21.85 TONS

Other
Time In Time Out Initials

Truck Wash
Time In Time Out Signature (NO Initials) Comments

Facility Personnel (please initial)

_____ Breaking or eating in prohibited areas

_____ Failure to obey instructions of facility personnel

_____ Failure to wear appropriate PPE

_____ Unsafe driving practices

_____ Other (specify)

_____ Leaving truck unattended

_____ Failure to display overweight flag

_____ Improper tarping or decontam

_____ Overweight upon arrival

Driver's Comments

Security Guard Initials:
(Indicating receipt of Wash Bay pass, if necessary)

NYG 1041642

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

OCT 16 1998

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

(Hazardous Waste Manifest 7/28/98)

Please type or print. Do not staple

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NYR000060780
Manifest Doc. No.:
2. Page 1 of: 1
Information within heavy bold line is not required by Federal Law.

GENERATOR

3. Generator's Name and Mailing Address:
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302
4. Generator's Telephone Number (716) 446-8955

A. NYG 1041642
B. Generator's ID

5. Transporter 1 (Company Name): Price Trucking
6. US EPA ID Number: NYD041657514
C. State Transporter's ID: PVG 137 NJ
D. Transporter's Telephone: 800 825-6001

7. Transporter 2 (Company Name)
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address: ~~Chemical Waste Management~~ Envirite of NY, LLC
1550 Balmer Road
Model City, NY 14107
10. US EPA ID Number: NYD041983656
G. State Facility ID
H. Facility Telephone ( ): 716 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Hazardous waste, solid, n.o.s. 9 NA3077 PG III (Lead)		CM	00017	T Y	EPA D008
					STATE
b.					EPA
					STATE
c					EPA
					STATE
d.					EPA
					STATE

J. Additional Descriptions for Materials listed Above: CJ2944

K. Handling Codes for Wastes Listed Above: a. c. b. d.

15. Special Handling Instructions and Additional Information
Container #-3007
Emergency Contact: Capitol Environmental Services (800) 560-2374 ERG #171
814941<79

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Harry H. Hutton
Signature:
Mo. 10 Day 06 Year 98
3:32 pm

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jerry Gricik
Signature:
Mo. 10 Day 16 Year 98

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Mo. Day Year

FACILITY

19. Discrepancy Indication Space
Crushed Drum 25T20lb Item 12-001 manifest Doc No. omitted Item-T

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Mo. 10 Day 06 Year 98

COPY 5—Generator—Mailed by TSD Facility

NYG 1041624

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

OCT 16 1998

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/21/94)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
	N Y R 0 0 0 0 6 0 7 8 8		1	

GENERATOR

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302

4. Generator's Telephone Number (716) 446-8955

A. NYG 1041624

B. Generator's ID SAME

5. Transporter 1 (Company Name)	6. US EPA ID Number	C. State Transporter's ID PX 9627 (NY)
Price Trucking	N Y D 0 1 4 6 7 6 5 5 7 4	D. Transporter's Telephone (800 825-6001
7. Transporter 2 (Company Name)	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address	10. US EPA ID Number	G. State Facility ID
CWM Chemical Services, LLC ~~Chemical Waste Management~~ 1550 Balmer Road Model City, NY 14107	N Y D 0 1 4 9 8 3 6 6 7 9	H. Facility Telephone ( ) 716 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Hazardous waste, solid, n.o.s. 9 NA3077 PG III (Lead)		CM		T	EPA D008
					STATE
b.					EPA
					STATE
c.					EPA
					STATE
d.					EPA
					STATE

J. Additional Descriptions for Materials listed Above	K. Handling Codes for Wastes Listed Above
a. CI2944 c.	a. c.
b. d.	b. d.

15. Special Handling Instructions and Additional Information Shipped container # 3009 Estimated 18cy/6444
463569-1
Emergency Contact: Capitol Environmental Services (800) 550-2374 ERG #171
814945 29

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
Harry H. Hutton	Harry H. Hutton	10	06	98

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials 8:50am

Printed/Typed Name	Signature	Mo.	Day	Year
Jerry L Gregg	Jerry L Gregg	10	06	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

FACILITY

19. Discrepancy Indication Space Gen omitted doc #8 Item 14-T
actual pkgd 406804 Item 12-001 Item K-II

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Eldon Carton	Eileen Carter	10	06	98

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

COPY 5—Generator—Mailed by TSD Facility

NYG 1041651

DEPARTMENT OF ENVIRONMENTAL C[illegible] DIVISION OF SOLID & HAZARDOUS MATERIALS

OCT 16 1998

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/28/98)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: NYR000086788
Manifest Doc. No.:
2. Page 1 of: 1
Information within heavy bold line is not required by Federal Law.

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302
4. Generator's Telephone Number (716) 446-8955

A. NYG 1041651
B. Generator's ID SAME 10/6
C. State Transporter's ID 4296277 (NY)
D. Transporter's Telephone (800 825-6001
E. State Transporter's ID
F. Transporter's Telephone ( )
G. State Facility ID
H. Facility Telephone ( ) 716 754-8231

5. Transporter 1 (Company Name): Price Trucking
6. US EPA ID Number: NYD046716515714
7. Transporter 2 (Company Name):
8. US EPA ID Number:

9. Designated Facility Name and Site Address
Chemical Waste Management
1550 Balmer Road
Model City, NY 14107
10. US EPA ID Number: NYD049836779

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Hazardous waste, solid, n.o.s. 9 NA3077 PG III (Lead)		CM	00017	T	EPA D008 / STATE
b.					EPA / STATE
c.					EPA / STATE
d.					EPA / STATE

J. Additional Descriptions for Materials listed Above
a. CJ2944
K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Cont'n r # 2015 81444566
Emergency Contact: Capitol Environmental Services (800) 568-2374 ERG #171

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: Harry H. Hutton — Signature: [signature] — Mo. 10 Day 06 Year 98

17. Transporter 1 Acknowledgement of Receipt of Materials
12-90

TRANSPORTER — Printed/Typed Name: Jerry Gregg — Signature: [signature] — Mo. 10 Day 06 Year 98

18. Transporter 2 Acknowledgement of Receipt of Materials

TRANSPORTER — Printed/Typed Name: — Signature: — Mo. Day Year

FACILITY — 19. Discrepancy Indication Space: Item K-[illegible] actual recvd 20730# — Item 12-001 gen. omitted doc no.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

FACILITY — Printed/Typed Name: Eileen Carton — Signature: Eileen Carton — Mo. 10 Day 06 Year 98

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

COPY 5—Generator—Mailed by TSD Facility

Waste Management, Inc.

CWM Chemical Services, L.L.C. Phone 716/754-8231
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107

Federal EPA ID: NYD049836679

SKW METALS & ALLOYS
ATTN: ENVIRONMENTAL COMPLIANCE DEPT
NYR000060780
300 CORPORATE PARKWAY, SUITE 216 NORTH
AMHERST NY 14226

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C. has received waste material from SKW METALS & ALLOYS on 10/06/98 as described on Hazardous Waste Manifest number NYG1041624 Sequence number 01.

Profile Number: CL2944
CWM Tracking ID: B149452901
CWM Unit #: 1*0
Disposal Date: 10/12/98

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Michele a.P. Foulke

MICHELE FOULKE
RECORDS DEPT. SUPERVISOR
Certificate # 130067
10/14/98

For questions please call our Customer Service Dept. at (800) 843-3604

Gary James,
We received these (3)
via Telecopier mail ?!
Cindy
10/15
502-395-2165

Waste Management, Inc.

CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
Phone 716/754-8231

Federal EPA ID: NYD049836679

SKW METALS & ALLOYS
ATTN: ENVIRONMENTAL COMPLIANCE DEPT
NYR000060780
300 CORPORATE PARKWAY, SUITE 216 NORTH
AMHERST NY 14226

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C. has received waste material from SKW METALS & ALLOYS on 10/06/98 as described on Hazardous Waste Manifest number NYG1041651 Sequence number 01.

Profile Number: CL2944
CWM Tracking ID: 8149456601
CWM Unit #: 1*0
Disposal Date: 10/12/98

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Michele a. P. Foulke

MICHELE FOULKE
RECORDS DEPT. SUPERVISOR
Certificate # 130068
10/14/98

For questions please call our Customer Service Dept. at (800) 843-3604

Waste Management, Inc.

CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
Phone 716/754-8231

Federal EPA ID: NYD049836679

SKW METALS & ALLOYS
ATTN: ENVIRONMENTAL COMPLIANCE DEPT
NYR000060780
300 CORPORATE PARKWAY, SUITE 216 NORTH
AMHERST NY 14226

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C. has received waste material from SKW METALS & ALLOYS on 10/06/98 as described on Hazardous Waste Manifest number NYG1041642 Sequence number 01.

Profile Number: CL2944
CWM Tracking ID: 8149457901
CWM Unit #: 1*0
Disposal Date: 10/09/98

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Michele a.P. Foulke

MICHELE FOULKE
RECORDS DEPT. SUPERVISOR
Certificate # 129894
10/13/98

For questions please call our Customer Service Dept. at (800) 843-3604

01/11/98 14:51 ☎5023952108 SKW ADMIN →→→ LAN ASSOC 008/015

NYG 1041606

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS
OCT 22 1998

Please type or print. Do not staple

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

(Hazardous Waste Manifest 1/98/98)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
	N Y R 0 0 0 0 6 0 7 8 0		1	

3. Generator's Name and Mailing Address

SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302

4. Generator's Telephone Number (716) 446-8955

A. NYG 1041606

B. Generator's ID Same

C. State Transporter's ID (NY)

D. Transporter's Telephone (800 825-6801

E. State Transporter's ID

F. Transporter's Telephone ( )

G. State Facility ID

H. Facility Telephone ( ) 716 754-8231

5. Transporter 1 (Company Name)	6. US EPA ID Number
Price Trucking	N Y D 0 4 6 7 6 5 5 7 4
7. Transporter 2 (Company Name)	8. US EPA ID Number
9. Designated Facility Name and Site Address	10. US EPA ID Number
Chemical Waste Management 1550 Balmer Road Model City, NY 14107	N Y D 0 4 9 8 3 6 6 7 9

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Hazardous waste, solid, n.o.s. 9 NA3077 PG III (Lead)		CM	Est 20bbl	T@R	EPA D008
					STATE
b.					EPA
					STATE
c					EPA
					STATE
d.					EPA
					STATE

J. Additional Descriptions for Materials listed Above

a. CJ2944

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Container # B2796RT D4994677

Emergency Contact: Capitol Environmental Services (800) 560-2374 ERG #171

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
Harry H Hutton	Harry H Hutton	11	07	98

17. Transporter 1 Acknowledgement of Receipt of Materials 9:45

Printed/Typed Name	Signature	Mo.	Day	Year
Jenny Grey	Jenny Grey	11	07	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

19. Discrepancy Indication Space

actual shipped 43700 P Item 14-T

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Eldon Carton	Eldon Carton	10	07	98

GENERATOR

TRANSPORTER

FACILITY

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

COPY 5—Generator—Mailed by TSD Facility

Waste Management, Inc.

CWM Chemical Services, L.L.C. Phone (716) 754-8231
1550 Balmer Rd
PO Box 200
Model City, NY 14107

Federal EPA ID: NYD049836679

SKW METALS & ALLOYS
ATTN: ENVIRONMENTAL COMPLIANCE DEPT
NYR000060780
300 CORPORATE PARKWAY, SUITE 216 NORTH
AMHERST NY 14226

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C. has received waste material from SKW METALS & ALLOYS on 10/07/98 as described on Hazardous Waste Manifest number NYG1041606 Sequence number 01.

Profile Number: GL2944
CWM Tracking ID: 8149467701
CWM Unit #: 1*0
Disposal Date: 10/14/98

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the date listed above.

Michele A.P. Foulke

MICHELE FOULKE
RECORDS DEPT. SUPERVISOR
Certificate # 134731
12/09/98

For questions please call
Our Customer Service Dept.
at (800) 843-3604

NYG 1041597

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID & HAZARDOUS MATERIALS

OCT 22 1998

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please type or print. Do not staple

(Hazardous Waste Manifest 1/88/98)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	Information within heavy bold line is not required by Federal Law.
NYR000060780		1	

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302

4. Generator's Telephone Number (716) 446-8955

A. NYG 1041597

B. Generator's ID SAME 2107

5. Transporter 1 (Company Name) Price Trucking

6. US EPA ID Number NYD047853574

C. State Transporter's ID

D. Transporter's Telephone (800 825-6001

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Telephone ( )

9. Designated Facility Name and Site Address
CWM SECURITY
Chemical ~~Waste Management~~
1550 Balmer Road
Model City, NY 14107

10. US EPA ID Number NYD049836579

G. State Facility ID

H. Facility Telephone ( ) 716 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers Number	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ, Hazardous waste, solid, n.o.s. 9 NA3077 PG III (Lead)	001	CM	2200	P	EPA D008
					STATE
b.					EPA
					STATE
c					EPA
					STATE
d.					EPA
					STATE

J. Additional Descriptions for Materials listed Above
a. CJ2944
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. c.
b. d.

15. Special Handling Instructions and Additional Information
Container # R3231RT 8149467
Emergency Contact: Capitol Environmental Services (800) 560-2374 ERG #171

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Mo.	Day	Year
Harry H. Hutton		10	07	98

17. Transporter 1 Acknowledgement of Receipt of Materials 1660 10/7/98

Printed/Typed Name	Signature	Mo.	Day	Year
GENE WALENTOWICZ		10	07	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Mo.	Day	Year

19. Discrepancy Indication Space
actual found 43280P

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Mo.	Day	Year
Elwood Carton		10	07	98

GENERATOR
TRANSPORTER
FACILITY

In case of emergency or spill immediately call the National Response Center (800) 424-8802 and the NYS Department of Environmental Conservation (518) 457-7362

COPY 5—Generator—Mailed by TSD Facility

Waste Management, Inc.

CWM Chemical Services, L.L.C. Phone 716/754-8231
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107

deral EPA ID: NYD049836679

W METALS & ALLOYS
TN: ENVIRONMENTAL COMPLIANCE DEPT
NYR000060780
300 CORPORATE PARKWAY, SUITE 216 NORTH
HERST NY 14226

CERTIFICATE OF DISPOSAL

CWM CHEMICAL SERVICES, L.L.C. has received waste material from SKW METALS & ALLOYS on 10/07/98 as described on Hazardous Waste Manifest number NYG1041597 equence number 01.

Profile Number: CL2944
CWM Tracking ID: 8149469701
CWM Unit #: 1*0
Disposal Date: 10/14/98

I certify, on behalf of the above listed treatment facility, that to the best f my knowledge, the above-described waste was managed in compliance with all pplicable laws, regulations, permits and licenses on the date listed above.

Michele A. P. Foulke

ICHELE FOULKE
ECORDS DEPT. SUPERVISOR
Certificate # 134732
2/09/98

For questions please call our Customer Service Dept. at (800) 843-3604

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Bag #1
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/29/98
SAMPLE TYPE: Solid

AES CLIENT ID: DTT
AES SAMPLE ID: 82AH-1

PROJECT ID: 82AH

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.25	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	0.05	1.0	0.02	SW 846 6010
Chromium	0.12	5.0	0.05	SW 846 6010
Lead	7.91	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	0.17	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Bag #2
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/29/98
SAMPLE TYPE: Solid

AES CLIENT ID: DTT
AES SAMPLE ID: 82AH-2

PROJECT ID: 82AH

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.31	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	0.06	1.0	0.02	SW 846 6010
Chromium	0.12	5.0	0.05	SW 846 6010
Lead	8.6	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	0.23	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Bag #3
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/29/98
SAMPLE TYPE: Solid

AES CLIENT ID: DTT
AES SAMPLE ID: 82AH-3

PROJECT ID: 82AH

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.16	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	0.04	1.0	0.02	SW 846 6010
Chromium	0.19	5.0	0.05	SW 846 6010
Lead	13.5	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

SKW ALLOYS

METALS ANALYSIS

STAKE #473, DRUMS 1 AND 2

Prepared By:

ADVANCED ENVIRONMENTAL SERVICES INC.

"A Company Dedicated to Honesty, Quality and Service"

August 26, 1998
REF: DTT1829K/100O
Lab ID No. 10233

QA/QC VERIFICATION FOR PROJECT ID 829K

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherance to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Metals Department

Quality Control

Project Manager

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits
ND - None Detected
NG - No Growth of Colonies
NR - Not Requested
D - Indicates a dilution was required

CLIENT: SKW Alloys
SAMPLE ID: Stake #473 Drum #1
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/24/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 829K-1

PROJECT ID: 829K

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Total Silver	ND	mg/kg	1.0	SW 846 6010
Total Aluminum	263	mg/kg	10.0	SW 846 6010
Total Boron	ND	mg/kg	5.0	SW 846 6010
Total Barium	24.2	mg/kg	0.2	SW 846 6010
Total Beryllium	ND	mg/kg	0.2	SW 846 6010
Total Calcium	1040	mg/kg	8.0	SW 846 6010
Total Cadmium	ND D	mg/kg	16	SW 846 6010
Total Cobalt	41.9	mg/kg	1.8	SW 846 6010
Total Chromium	3360 D	mg/kg	1.4	SW 846 6010
Total Copper	8330 D	mg/kg	1.0	SW 846 6010
Total Iron	428000 D	mg/kg	6.0	SW 846 6010
Total Potassium	163	mg/kg	180	SW 846 6010
Total Magnesium	191	mg/kg	14	SW 846 6010
Total Manganese	9090 D	mg/kg	1.0	SW 846 6010
Total Sodium	22.7	mg/kg	8.0	SW 846 6010
Total Nickel	354 D	mg/kg	5.0	SW 846 6010
Total Lead	55.0	mg/kg	8.0	SW 846 6010
Total Antimony	ND	mg/kg	24	SW 846 6010
Total Thallium	5820 D	mg/kg	5.0	SW 846 6010
Total Vanadium	6.64	mg/kg	1.0	SW 846 6010
Total Zinc	109 D	mg/kg	1.6	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Stake #473 Drum #2
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/24/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 829K-2

PROJECT ID: 829K

Analytical Parameters	Analytical Results	Units	Practical Quantifiable Limit	Method
Total Silver	22.0 D	mg/kg	1.0	SW 846 6010
Total Aluminum	11100 D	mg/kg	10.0	SW 846 6010
Total Boron	ND	mg/kg	5.0	SW 846 6010
Total Barium	569 D	mg/kg	0.2	SW 846 6010
Total Beryllium	1.29	mg/kg	0.2	SW 846 6010
Total Calcium	10000 D	mg/kg	8.0	SW 846 6010
Total Cadmium	27.5 D	mg/kg	1.6	SW 846 6010
Total Cobalt	14.3 D	mg/kg	1.8	SW 846 6010
Total Chromium	105 D	mg/kg	1.4	SW 846 6010
Total Copper	1830 D	mg/kg	1.0	SW 846 6010
Total Iron	62100 D	mg/kg	6.0	SW 846 6010
Total Potassium	3890	mg/kg	180	SW 846 6010
Total Magnesium	1100 D	mg/kg	14	SW 846 6010
Total Manganese	105000 D	mg/kg	1.0	SW 846 6010
Total Sodium	560 D	mg/kg	8.0	SW 846 6010
Total Nickel	536 D	mg/kg	5.0	SW 846 6010
Total Lead	82.9 D	mg/kg	8.0	SW 846 6010
Total Antimony	ND	mg/kg	24	SW 846 6010
Total Thallium	934 D	mg/kg	5.0	SW 846 6010
Total Vanadium	76.4 D	mg/kg	1.0	SW 846 6010
Total Zinc	4380 D	mg/kg	1.6	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Stake #473 Drum 1
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/24/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82BQ-1

PROJECT ID: 82BQ

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010
Barium	1.2	100	1.0	SW 846 6010
Cadmium	ND	1.0	0.02	SW 846 6010
Chromium	ND	5.0	0.05	SW 846 6010
Lead	0.09	5.0	0.08	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Stake #473 Drum 2
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/24/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82BQ-2

PROJECT ID: 82BQ

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010
Barium	1.2	100	1.0	SW 846 6010
Cadmium	0.06	1.0	0.02	SW 846 6010
Chromium	ND	5.0	0.05	SW 846 6010
Lead	0.09	5.0	0.08	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES, INC
Extraction Traceability Report

AES Job Code DTT AES Project Reference 82BQ

TECHNICIAN	ANALYTICAL METHOD	SAMPLE ID(S)	DATE OF EXTRACTION
RP/MC	1311	82BQ 1,2	8/1-2/98

Advanced Environmental Services, Inc
Sample Traceability Report

Project Identification DTT 82BQ

Sample #	Sample Collection	Group #	Run #	Prep Method	Prep Date	Analyst	Analytical Methodology	Analysis Date	Analyst
82BQ-1,2	7/24/98	–	–	3010	8/3/98	RP	6010	8/3/98	RP
1	↓	–	–	7470	8/3/98	RP	7470	8/3/98	JY

Please note: Areas marked by a dash indicate that no sample preparation is required under the applied methodology

CHAIN OF CUSTODY RECORD

ADVANCED
ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW ALLOYS

PROJECT NAME: [illegible]

SAMPLER'S SIGNATURE: [signature]

PROJECT I.D.#: 2.3269

JOB CODE: DTT

8291K

S2BQ

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO3	H2SO4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
7/24/98	11 05	[illegible]	X		[illegible]									1	T [illegible]
11	11 15	[illegible]	X		[illegible]									1	[illegible]

Appendix J

Documentation of Non-Hazardous Waste Disposal

SLC Constructors, Inc.

FIELD CHANGE ORDER AUTHORIZATION

Job No. 98027 Job Name SKW Date Work Performed 8-14/9-21

SLC CONSTRUCTORS INC. Address
Work Done By

SKIP HUTTON - LAN Address
Work Authorized By

Description of Work Performed:

TRANSPORTATION AND DISPOSAL OF NON-HAZARDOUS R.R. TIES TO A SUBTITLE D LANDFILL INCLUDING DEMURRAGE. PER CONTRACT.

Number	Craft	ST Hrs	OT Hrs	Rate	Tota

Other Charges, Equipment:	ST Hrs	OT Hrs	Rate
80 TONS @	$35.00	TON	$2800.00
7.75 HOURS x $75.00/HR x 1.15 =			$668.44

Material & Supplies

Documentation of Disposal Railroad Ties

SLC CONSTRUCTORS, INC. (SLC)
Extra Work Done By

Supervisor SLC Company Name

Supervisor Company Name

Capitol Environmental Services, Inc.

INVOICE

8229 Boone Blvd., Suite 310
Vienna, VA 22182
(703) 356-3135

RECEIVED OCT 2 9 1998

SOLD TO: SLC Constructors, Inc.
295 Mill St.
Lockport, NY 14094
Attn: Mr. John Kuhn

SHIPPED TO: Lakeview Landfill

INVOICE NUMBER	0921986
INVOICE DATE	10/20/98
TERMS	Net 30
YOUR ORDER NUMBER	Verbal
SALES REP	J. Corbett
SHIPPED VIA	Price Trucking
PREPAID or COLLECT	Collect

20	Ton	Transportation & Disposal of Railroad Ties from SKW **20 ton minimum applies to above line item** **Actual tonnage 8.09**	[redacted]	[redacted]
20	Ton	Transportation & Disposal of Railroad Ties from SKW **20 ton minimum applies to above line item** **Actual tonnage 11.23**	[redacted]	[redacted]
20	Ton	Transportation & Disposal of Railroad Ties from SKW **20 ton minimum applies to above line item** **Actual tonnage 10.11**	[redacted]	[redacted]
3	Hours	Loading Demurrage 09/18/98	75.00	225.00
4.75	Hours	Loading Demurrage 09/21/98	75.00	356.25

ENTERED NOV 0 9 1998

VENDOR
INVOICE # 092198 6
DATE 10/29/98
AMOUNT [redacted]
TAXABLE
ACCT # 1407-99
JOB/EQUIP # 98-027
TASK/MAINT. CODE 99-001
APPROVAL

SUBTOTAL	[redacted]
TAX	
FREIGHT	
PAY THIS AMOUNT	[redacted]

Questions concerning this invoice? Call: Jim Kibald (800) 560-CESI

MAKE ALL CHECKS PAYABLE TO:
Capitol Environmental Services, Inc.

THANK YOU FOR YOUR BUSINESS!

Capitol Environmental Services, Inc.

INVOICE

8229 Boone Blvd., Suite 310
Vienna, VA 22182
(703) 356-3135

RECEIVED SEP 2 3 1998

SOLD TO: SLC Constructors, Inc.
295 Mill St.
Lockport, NY 14094
Attn: Mr. John Kuhn

SHIPPED TO: Lakeview Landfill

INVOICE NUMBER	0814982
INVOICE DATE	09/17/98
TERMS	Net 30
YOUR ORDER NUMBER	Verbal
SALES REP	J. Corbett
SHIPPED VIA	Browns Truckin
PREPAID or COLLECT	Collect

10	Tons	Transportation & Disposal of Railroad Ties from SKW **10 ton minimum applies to above line item** **Actual tonnage 4.37**	[redacted]	[redacted]
10	Tons	Transportation & Disposal of Railroad Ties from SKW **10 ton minimum applies to above line item** **Actual tonnage 4.83**	[redacted]	[redacted]

SUBTOTAL	[redacted]
TAX	
FREIGHT	
PAY THIS AMOUNT	[redacted]

Questions concerning this invoice?
Call: Kymn Archibald
(800) 560-CESI

MAKE ALL CHECKS PAYABLE TO:
Capitol Environmental Services, Inc.

THANK YOU FOR YOUR BUSINESS!

ENTERED SEP 2 3 1998

GIVE (1) Copy to Scott For Ref. / 1 Copy to Job File

T+M.

(W)

Change Order →

INVOICE # 0814982
DATE 9/23/98
AMOUNT [redacted]
TAXABLE
ACCT # 1407-99
JOB/EQUIP # 98027
TASK/MAINT. CODE ~~6-661~~
APPROVAL (W) 9/27

LAKE VIEW LANDFILL
HARD HATS AND SAFETY GLASSES ARE
REQUIRED AT LAKE VIEW LANDFILL!!

889557
DATE: 08/14/98
TIME: 11:03-11:12

CUSTOMER: 406
CAPITOL ENVIRONMENTAL SERVICES

HAULER:

PROFILE 6055

TRUCK: B44 WASTE: CND DEMOLITION
BUFFALO, DEMO

MANIFEST:

ORIGIN
NEW YORK

	PCT	WGT/VOL
	100	. 8740

GROSS: 34440 LBS

TARE: 25700 LBS

NET: 8740 LBS = 4.37 TONS

TONS DUMPED TODAY: 4.37

0004404 REMARKS _____ SIGN _____

LAKE VIEW LANDFILL
HARD HATS AND SAFETY GLASSES ARE
REQUIRED AT LAKE VIEW LANDFILL!!

889572
DATE: 08/14/98
TIME: 11:27-11:43

CUSTOMER: 406
CAPITOL ENVIRONMENTAL SERVICES

HAULER:

PROFILE 6055

TRUCK: B7 WASTE: CND DEMOLITION
BUFFALO, DEMO

MANIFEST:

ORIGIN
NEW YORK

	PCT	WGT/VOL
	100	9660

GROSS: 38600 LBS

TARE: 28940 LBS

NET: 9660 LBS = 4.83 TONS

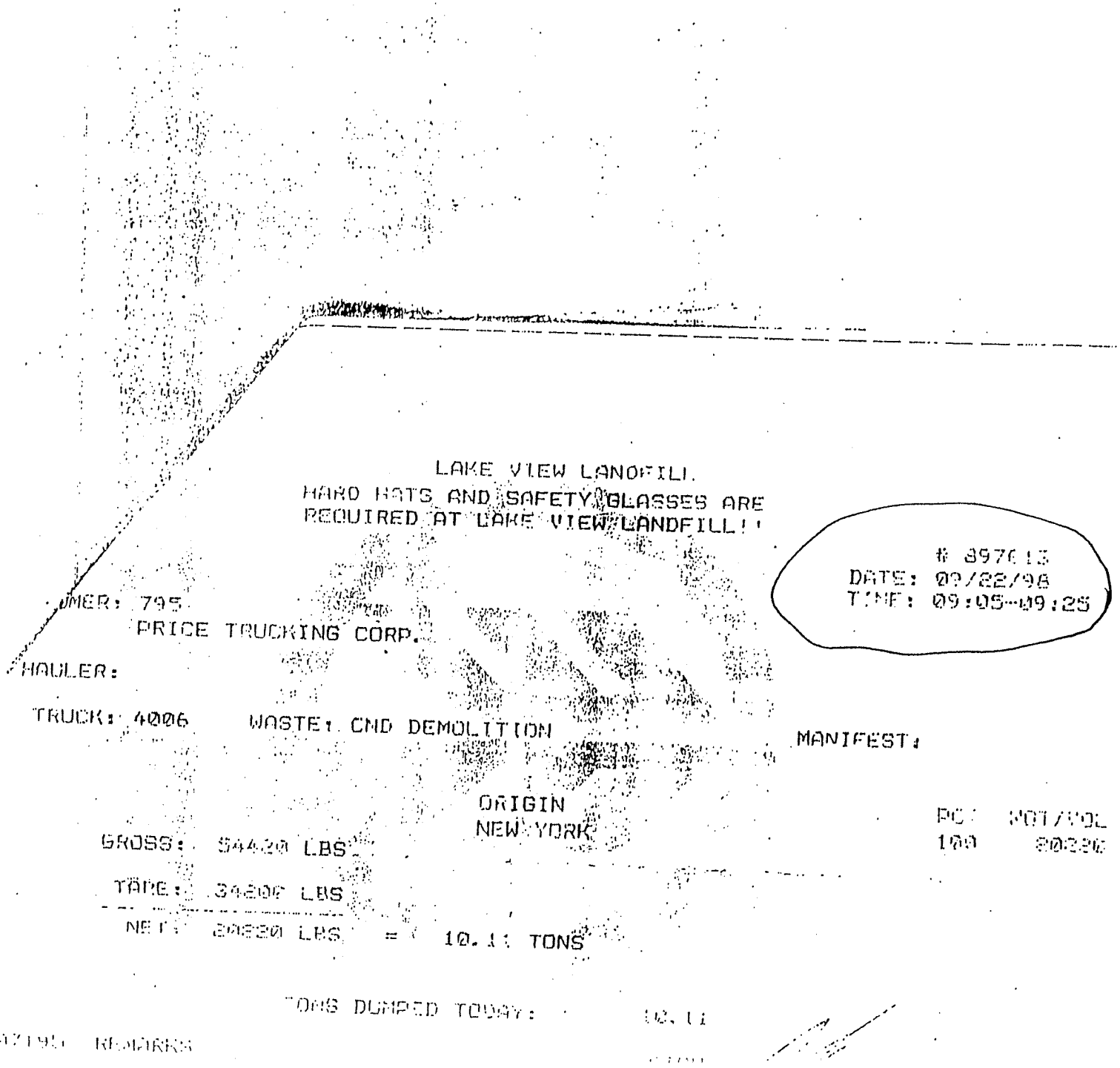
TONS DUMPED TODAY: 9.20

0004404 REMARKS _____ SIGN _____



HARD HA[illegible] LANDFILL
REQUIR[illegible] LAKE VIEW LANDFILL
897306
DATE: 09/21/98
TIME: 07:21:07:58
CUSTOMER: 795
PRICE TRUCKING CORP
HAULER:
TRUCK: 4006
WASTE: MSW
MANIFEST:
ORIGIN
NEW YORK
PCT WGT/VOL
100 16180
GROSS: 49280 LBS
TARE: 33100 LBS
NET: 16180 LBS
8.09 TONS
TONS DUMPED TODAY: 8.09


HARD HAT AND SAFETY GLASSES ARE
REQUIRED AT LAKE VIEW LANDFILL
#897307
DATE: 09/21/98
TIME: 07:24:08:01
CUSTOMER: 755
PRICE TRUCKING CORP.
HAULER:
TRUCK: 166
WASTE: MSW TRANSFER STATION
MANIFEST:
ORIGIN
NEW YORK
PCT WGT/VOL
100 22460
GROSS: 54660 LBS
TARE: 32200 LBS
NET: 22460 LBS = 11.23 TONS
TONS DUMPED TODAY



LAKE VIEW LANDFILL
HARD HATS AND SAFETY GLASSES ARE
REQUIRED AT LAKE VIEW LANDFILL!!

897613
DATE: 02/22/96
TIME: 09:05-09:25

UMER: 795
PRICE TRUCKING CORP.

HAULER:

TRUCK: 4006 WASTE: CND DEMOLITION MANIFEST:

ORIGIN
NEW YORK

PC: POT/POL C
100 90396

GROSS: 54420 LBS

TARE: 34200 LBS

NET: 20220 LBS = 10.11 TONS

TONS DUMPED TODAY: 10.11

REMARKS

STRAIGHT BILL OF LADING – SHORT FORM – Original – Not Negotiable

Carrier: PRICE TRUCKING Shipper's No. PO 001

Carrier's No. 166 7534

SCAC.

, date from

(Mail or street address of consignee for purposes of notification only.)

CWM

ERIE PA Zip

FROM: SKW Metals & Alloys

Shipper Street Witmer Road

Origin Niagara Falls NY Zip

Carrier Trailer Initial/ Number U S DOT Hazmat Reg. Number

HM	Description of articles, special marks, and exceptions	Hazard Class	I.D. Number	Packing Group	Weight (subject to correction)	Class or rate	Labels required (or exemption)	Check column
	Railroad Ties	Non Haz						
	loading time 10:00am – 3:00 pm							

C.O.D. to:

State: Zip:

COD AMT: $

Charges Advanced $

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor)

C. O. D. FEE:
Prepaid ☐
Collect ☐ $

FREIGHT CHARGES
☐ Prepaid ☐ Collect

PLACARDS REQUIRED

PLACARDS SUPPLIED ☐ YES ☐ NO - FURNISHED BY CARRIER

DRIVER'S SIGNATURE:

ER:

DATE: 9/16/95

CARRIER:

PER: DATE:

EMERGENCY RESPONSE TELEPHONE NUMBER: ( )

Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (§172.604)

post office address of shipper

9-BLS-A3 (Rev. 7/95)

STRAIGHT BILL OF LADING – SHORT FORM – Original – Not Negotiable

Shipper's No. 002

(Carrier) Price Trucking SCAC. _____ Carrier's No. 4006 1/2 20

Received, subject to the classifications and tariffs in effect on the date of this Bill of Lading:

at _____, date _____ from _____

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained (as specified in Appendix B to Part 1036) which are hereby agreed to by the shipper and accepted for himself and his assigns.

TO: (Mail or street address of consignee for purposes of notification only.)
Consignee
Street
Destination Zip

FROM: SKW Metals & Alloys
Shipper
Street Witmer Road
Origin Niagara Falls NY Zip

Route:

Delivering Carrier | Trailer Initial/Number | U.S. DOT Hazmat Reg. Number

No. of packages	HM	Description of articles, special marks and exceptions	Hazard Class	I.D Number	Packing Group	*Weight (subject to correction)	Class or rate	Labels required	Check column
		Railroad Ties	Non Haz						
		AM 10:15 TO 4:45 PM							

Remit C.O.D. to:
Address:
City: State: Zip:

COD AMT: $

Charges Advanced $ _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of consignor)

C.O.D. FEE: Prepaid ☐ Collect ☐ $

FREIGHT CHARGES ☐ Prepaid ☐ Collect

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight".
Note. – Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby _____
specifically stated by the shipper to be not exceeding _____ per _____

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

PLACARDS REQUIRED ☐ PLACARDS SUPPLIED ☐ YES ☐ NO - FURNISHED BY CARRIER

SHIPPER: _____
PER: _____ DATE: 9/16/98

CARRIER: _____
PER: _____ DATE: 9/21/98

DRIVER'S SIGNATURE: _____

EMERGENCY RESPONSE TELEPHONE NUMBER: ( ) _____
Monitored at all times the Hazardous Material is in transportation including storage incidental to transportation (49 CFR 172.604)

Permanent post office address of shipper

Soil Disposal From Eastern Portion of Property

MODERN CORPORATIONS
P.O. BOX 209 MODEL CITY, NEW YORK 14107
LANDFILL SITE - HAROLD ⊕ PLETCHER RD.
LEWISTON, NEW YORK

TICKET : 450818
DATE IN : 09/25/98 08:43:27
DATE OUT: 09/25/98 08:43:38

TRUCK :499
HAULER :MDS MODERN DISPOSAL
GENERATOR: 8216.051
GREEN ENVIRONMENT SPECIALIST
STOLLSBURG
BILL TO : 6163.000
MDS MODERN DISPOSAL
COMMODITY:0000 NON HAZ SOIL AND OIL CLEANUP
GROSS WEIGHT: 77,550.
TARE WEIGHT: 30,190.
NET WEIGHT: 47,360.
TONS: 23.68

HAULER TICKET:TK719568-000

WEIGHMASTER: _____

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: _____

MODERN CORPORATIONS
P.O. BOX 209 MODEL CITY, NEW YORK 14107
LANDFILL SITE - HAROLD ⊕ PLETCHER RD.
LEWISTON, NEW YORK

TICKET : 450799
DATE IN : 09/25/98 09:05:08
DATE OUT: 09/25/98 09:05:09

TRUCK :497
HAULER :MDS MODERN DISPOSAL
GENERATOR: 8216.051
GREEN ENVIRONMENT SPECIALIST
STOLLSBURG
BILL TO : 6163.000
MDS MODERN DISPOSAL
COMMODITY:0000-0000 SOIL AND OIL CLEANUP
GROSS WEIGHT: 65,180.
TARE WEIGHT: 30,540.
NET WEIGHT: 34,580.
TONS: 17.29

HAULER TICKET:TK719561-000

WEIGHMASTER: _____

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: _____

4746 MODEL CITY ROAD, PO BOX 209
MODEL CITY, NY 14107-0209
1-800-662-0012 716-754-8226
Modern Disposal Services, Inc.

DATE: 09/25/98
SITE TIME IN: 7:00
SITE TIME OUT: 7:45
ROUTE: X012

TRANSACTION #: TK-719561-0
TRUCK #: 497
PREPARED BY: patw
DUMP SITE: MLF MODERN LANDFILL

SERVICE SITE:

2216.051
GREEN ENVIRONMENT, SPECIALIST
STOLLBURG
4113 WITMER ROAD
NIAGARA FALLS

Contact: JIM WTMER
Phone : 716/298-5298

G98-0498
COMMODITY: 0800-0000 SOIL AND OIL CLEANUP
TRANSACTION TYPE/STYLE: LOAD ON SITE TA
CONTAINER SIZE: 15.00

CONTAINER # IN: _____
CONTAINER # OUT: _____

Service Code: DUMP TRUCK SERVICE
TONS (G98-0498) CONTAMINATED SOIL (15 TON LIMIT)

DRIVER SIGNATURE

CUSTOMER SIGNATURE

PLEASE NOTE INDEMNIFICATION AGREEMENT

Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The customer shall not overload the equipment nor use it for incineration purposes or make alterations without the Contractor's written approval.

CUSTOMER'S COPY

4746 MODEL CITY ROAD, PO BOX 209
MODEL CITY, NY 14107-0209
1-800-662-0012 716-754-8226
Modern Disposal Services, Inc.

DATE: 09/25/98
SITE TIME IN: 7⁰⁰
SITE TIME OUT: 8⁰⁰
ROUTE: X012

TRANSACTION #: TK-719562-0
TRUCK #: 499
PREPARED BY: patw
DUMP SITE: MLF MODERN LANDFILL

SERVICE SITE:

2216.051
GREEN ENVIRONMENT SPECIALIST
STOLLBURG
4113 WITMER ROAD
NIAGARA FALLS

Contact: JIM WTMER
Phone : 716/298-5298

G98-0498

COMMODITY: 0800-0000 SOIL AND OIL CLEANUP
TRANSACTION TYPE/STYLE: LOAD ON SITE TA
CONTAINER SIZE: 15.00

CONTAINER # IN: _____

CONTAINER # OUT: _____

Service Code: DUMP TRUCK SERVICE
TONS (G98-0498) CONTAMINATED SOIL (15 TON LIMIT)

RIVER SIGNATURE

CUSTOMER SIGNATURE

PLEASE NOTE INDEMNIFICATION AGREEMENT

Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and ...lity or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipm... ...ising out of the Customer's breach of any warranty created hereunder by the Customer. The customer shall not overload the equipm... use it for incineration purposes or make alterations without the Contractor's written approval.

CUSTOMER'S COPY

GENERATOR WASTE CHARACTERIZATION REPORT

INSTRUCTIONS: The following form is required for disposal of nonhazardous industrial/commercial wastes at Modern Landfill. Please complete all sections of this report. Send completed report along with the analytical, chain of custody and the Application for Disposal of an Industrial Waste Stream (47-19-7) to this office. A separate form is required for each waste stream.

GENERATOR INFORMATION:

Generator Name: Stollberg, Inc.

Generating Facility Address: 4111 Witmer Rd. P.O. Box 368
NIAGARA FALLS, NY 14305-0368

Technical Contact: Charles Ogin Phone: (716) 278-1656

Alternate Contact: Frank Schoner Phone: (716) 278-1638

INVOICING INFORMATION:

Contracting Firm: GREEN ENVIRONMENT SPECIALISTS, INC.

Contact: MATTHEW J. SCHIMPF Phone: (800) 275-8256

Do you have an existing account with Modern Landfill? [4] Yes [ ] No

Billing Address: 8335 QUARRY RD.
NIAGARA FALLS NY 14304

TRANSPORTER INFORMATION:

Hauler Name: LEWISTON TRUCKING NYSDEC Permit No.

Contact Person: TOD DAVIDSON Phone: ( ) -

Modern Landfill currently on your Transporter Permit: [4] Yes [ ] No

If no, please enclose a Part C Application to cover this waste stream.

WASTE INFORMATION:

Common name of waste: SOIL FROM UST EXCAVATION / DECOMMISSIONING

Description of process generating this waste: ROUTINE ABANDONMENT / DECOMMISSIONING OF UST THAT PREVIOUSLY CONTAINED FUEL OIL.

Is this waste hazardous under US EPA Guidelines & 6NYCRR Part 371 (d)? [ ] Yes [4] No

Indicate the category which best describes this waste stream:

[ ] Industrial Waste
[ ] Household Waste
[4] Commercial Solid Waste
[ ] Construction & Demolition Debris
[ ] Other (Please Specify) _____

PHYSICAL CHARACTERISTICS OF WASTE

The waste is at least 20% solid and contains no free liquid	Yes [✓] No [ ]
The Flashpoint of the waste is >140 F	Yes [✓] No [ ]
The pH level of the waste is between 2.0 and 12.5	Yes [✓] No [ ]
Is the waste reactive (Cyanide/Sulfide)?	Yes [ ] No [✓]
Is the waste free of PCBs?	Yes [✓] No [ ]
Color: Brown Odor: [ ] Strong [X] Mild [ ] None	

TCLP TESTING AND CERTIFICATION

METALS

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
ARSENIC	5.0		✓
BARIUM	100.0		✓
CADMIUM	1.0		✓
CHROMIUM	5.0		✓
LEAD	5.0		✓
MERCURY	0.2		✓
SELENIUM	1.0		✓
SILVER	5.0		✓

HERBICIDES/PESTICIDES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
2,4-D	10.0		✓
2,4,5-TP (SILVEX)	1.0		✓
ENDRIN	0.02		✓
LINDANE	0.4		✓
METHOXYCHLOR	10.0		✓
TOXAPHENE	0.5		✓
CHLORDANE	0.03		✓
HEPTACHLOR	0.008		✓

ACID EXTRACTABLES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
O-CRESOL	200.0		✓
M-CRESOL	200.0		✓
P-CRESOL	200.0		✓
PENTACHLOROPHENOL	100.0		✓
2,4,5-TRICHLOROPHENOL	400.0		✓
2,4,6-TRICHLOROPHENOL	2.0		✓

BASE NEUTRALS EXTRACTABLES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1,4-DICHLOROBENZENE	7.5		✓
2,4-DINITROTOLUENE	0.13		✓
HEXACHLOROBENZENE	0.13		✓
HEXACHLOROBUTADIENE	0.5		✓
HEXACHLOROETANE	3		✓
NITROBENZENE	2		✓
PYRIDINE	5		✓

VOLATILE ORGANICS

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1,1-DICHLOROETHYLENE	0.7		✓
METHYL ETHYL KETONE	200.0		✓
TRICHLOROETHYLENE	0.7		✓
VINYL CHLORIDE	0.2		✓
BENZENE	0.5		✓
CARBON TETRACHLORIDE	0.5		✓
CHLOROBENZENE	100.0		✓
CHLOROFORM	6.0		✓
DICHLOROETHYLENE	0.5		✓
1,2-DICHLOROETHANE	0.5		✓

CERTIFICATION

I CERTIFY THAT ALL INFORMATION CONTAINED WITHIN THIS GENERATOR WASTE CHARACTERIZATION REPORT, INCLUDING ALL ATTACHED INFORMATION, IS COMPLETE AND ACTUAL AND IS AN ACCURATE REPRESENTATION OF KNOWN OR SUSPECTED HAZARDS DESCRIBED HEREIN.

SIGNATURE: [signature]

PRINTED NAME: Charles A. Dain III

TITLE: Plant Manager

COMPANY: Stericycle Inc.

DATE: 9/22/95

GENERIC APPROVAL

INSTRUCTIONS: The following sections should only be used if you are disposing of Virgin Petroleum Contaminated Solid Waste. Virgin Petroleum material disposal requirements are divided into two (2) categories, lighter than #2 Fuel Oil and #2 Fuel Oil and Higher. Material resulting from Underground Storage Tanks (UST) and Tank Bottoms from storage and Crude Oil are also included in this program. The tables below indicate the minimum testing requirements for the waste stream. All conditions set forth in the preceding waste characterization report must also be met and certified by the generator.

Provide in detail the process or incident producing this waste on your company's letterhead. Modern Landfill must have the original on file and the letter must clearly state that this was indeed a virgin product spill or otherwise and the resulting debris/cleanup material is free of prior residue or spill. This letter must also state the type of material spilled, ie. #2 fuel oil, gasoline, mineral oil, etc.

LIGHTER THAN #2 FUEL OIL
Include all attachments detailed above.

CONSTITUENT	PRESENT (VALUE)	NOT PRESENT
TCLP LEAD		
TCLP BENZENE		
FLASHPOINT		

#2 FUEL OIL AND HIGHER
Include all attachments detailed above.

CONSTITUENT	PRESENT (VALUE)	NOT PRESENT
TCLP BENZENE		
FLASHPOINT		

CERTIFICATION

I CERTIFY THAT ALL INFORMATION CONTAINED WITHIN THIS GENERATOR WASTE CHARACTERIZATION REPORT, INCLUDING ALL ATTACHED INFORMATION IS COMPLETE AND ACTUAL AND IS AN ACCURATE REPRESENTATION OF KNOWN OR SUSPECTED HAZARDS DESCRIBED HEREIN.

SIGNATURE _____ DATE 9-22-98

PRINTED NAME Charles A. Ogin III TITLE Asst Manager

Documentation of Disposal of Petroleum Contaminated Soil From East End of Basin 6 Total Two Roll Off Containers

2.3269.22

SLC Constructors, Inc.
295 Mill Street
Lockport, New York 14094
(716) 433-0776 Fax (716) 433-0802

LETTER OF TRANSMITTAL

1/27/99

DATE: 1-18-99	JOB NO: 98-027
ATTN: SKIP [redacted] HUTTON	
RE:	

TO LAN ASSOCIATES 1 & 2.
66 CUNA STREET
ST. AUGUSTINE, FL 32084-3619

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1	—	—	WASTE MANIFEST, WEIGHT TICKETS, & CERTS. OF DISPOSAL
			FOR (2) PETROLEUM FILLED ROLLOFF BOXES

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☒ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____, 199____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS: _____

JAN 1 0 1999

COPY TO FILE

SIGNED: Scott R Hall

NON-HAZARD
WASTE MANIF

(2) PETROLEUM FILLED ROLLOFFS

	6 0 7 8 0	Manifest Document No.	2. Page 1 of 1

Generator's Name and Mailing
Sky Metals & Allt
411 Witmer Road;
716

4. Generator's Phone (

5. Transporter 1 Company Name: Price Trucking	6. US EPA ID Number: N Y D 0 4 6 7 8 5 3 7 4	A. Transporter's Phone: 800 825-6001	
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone	
9. Designated Facility Name and Site Address: C.I.D. Landfill, Inc. 10860 Olean Road Chaffee, NY 14030-9799	10. US EPA ID Number: N / A	C. Facility's Phone: 716-496-5000	

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non Dot Regulated Material (Soil)		C M	Approx	T
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Harry H. Hutton	Harry H. Hutton	10	20	98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Travis Wilson	Travis Wilson	10	20	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space: 1003 lbs # 380437

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

CID Landfill Inc

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	10	20	98

GENERATOR

TRANSPORTER

FACILITY

TRANSPORTER #2

C.I.D.

C.I.D. LANDFILL CHAFFEE SITE
716/496-5000

TICKET DATE: 10/20/98

TICKET NUMBER: 280437
CUSTOMER NUMBER: 72229.000

GENERATOR NUMBER: 72229.001

CAPITOL ENVIRONMENTAL

8229 BOONE BLVD.
, 00000

SKW METALS & ALLOYS
4111 WITMER ROAD
NIAGARA FALLS, NY 14302

TRUCK NUMBER: 9400
ROUTE NUMBER:

WASTE TYPE: CONT. SOIL (COV
APPLICATION #: 276 CONT. SOIL

THEIR TICKET #:
MANIFEST NUMBER:

LOCATION: 4I1600
MISC QUANTITY: 0.00

CONTAINER TYPE: 30 30 YD OPEN TOP
YARDAGE: 30.00

TIME IN: 12:24:08
TIME OUT: 14:33:59

GROSS WEIGHT: 78,760
TARE WEIGHT: 47,420
NET: 31,340
TONS: 15.67

C.I.D. LANDFILL, INC.
10860 Olean Road
Chaffee, New York 14030-9799
Tel: 716/496-5000
Fax: 716/496-5500

CERTIFICATE OF DISPOSAL

Date: 10/20/98 Time: 12:24 pm

Customer Name: SKW metals + Alloys Niagara NY

Customer Address: Capitol Environmental
8229 Boone Blvd. Vienna VA

Scale ticket # 280436
280437

I hereby certify that I have disposed and destroyed material delivered to C.I.D. Landfill, Inc. from the above-referenced customer on the above-referenced date.

C.I.D. LANDFILL, INC.

By: Michael T. Glasner
Landfill operations

Printed Name

Michael T. Glasner

983694 78C27 (2)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NYR000065780 | Manifest Document No. | 2. Page 1 of 1

3. Generator's Name and Mailing Address
SKF Metals & Alloys
411 Witmer Road, Niagara, NY 14302
716 446-8955
4. Generator's Phone ( )

5. Transporter 1 Company Name: Price Trucking | 6. US EPA ID Number: NYD046765574 | A. Transporter's Phone: 800 825-6001

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
C.I.D. Landfill, Inc.
10860 Olean Road
Chaffee, NY 14030-9799
10. US EPA ID Number: N / A
C. Facility's Phone: 716-496-5800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non Dot Regulated Material (Soil)		CM	Approx 0005	T
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Harry H. Hutton | Signature | Month 10 Day 20 Year 98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Travis Wilson | Signature | Month 10 Day 20 Year 98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space
220+40

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
CID Landfill Inc.

Printed/Typed Name: Lori Pack | Signature | Month 10 Day 20 Year 98

GENERATOR / TRANSPORTER / FACILITY

Printed by J.J. KELLER & ASSOCIATES, INC. Neenah, WI 54957-0368

TRANSPORTER #2

12-BLS-C6 Rev. 1/97

C.I.D.

C. I. D. LANDFILL CHAFFEE SITE
716/496-5000

TICKET DATE: 10/20/98

TICKET NUMBER: 280436
CUSTOMER NUMBER: 72229.000

GENERATOR NUMBER: 72229.001

CAPITOL ENVIRONMENTAL

8229 BOONE BLVD.
, 00000

SKW METALS & ALLOYS
4111 WITMER ROAD
NIAGARA FALLS, NY 14302

TRUCK NUMBER: 9400
ROUTE NUMBER:

WASTE TYPE: CONT. SOIL (COV

APPLICATION #: 276 CONT. SOIL

THEIR TICKET #:
MANIFEST NUMBER:

LOCATION: 4I1600

MISC QUANTITY: 0.00

CONTAINER TYPE: 30 30 YD OPEN TOP
YARDAGE: 30.00

TIME IN: 12:23:59
TIME OUT: 13:21:30

GROSS WEIGHT: 118,840
TARE WEIGHT: 78,760
NET: 40,080
TONS: 20.04

C.I.D. LANDFILL, INC.
10860 Olean Road
Chaffee, New York 14030-9799
Tel: 716/496-5000
Fax: 716/496-5500

CERTIFICATE OF DISPOSAL

Date: 10/20/98 Time: 12:24 pm

Customer Name: SKW metals & Alloys Niagara NY

Customer Address: Capitol Environmental

8229 Boone Blvd. Vienna VA

Scale ticket # 280436
280437

I hereby certify that I have disposed and destroyed material delivered to C.I.D. Landfill, Inc. from the above-referenced customer on the above-referenced date.

C.I.D. LANDFILL, INC.

By: Michael T. Glasner Landfill operations

Printed Name

Michael T. Glasner

Documentation of Disposal
Roofing Material

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NYR000066780 | Manifest Document No. 98101 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302
4. Generator's Phone (716 446-8955

Same

5. Transporter 1 Company Name: S & J Transportation Co. | 6. US EPA ID Number: NJD071629976 | A. Transporter's Phone: 609 769-2741

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Chemtron Corporation
35850 Schneider Ct.
Avon, OH 44011-1232
10. US EPA ID Number: OHD066060609
C. Facility's Phone: 800 676-5091

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non DOT Regulated Material	003	M	1.0165	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

A. Approval#
Emergency Contact: Capitol Environmental Services (800) 360-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Harry H. Hitin | Signature | Month 12 Day 2 Year 98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: R C Slippey Jr | Signature | Month 12 Day 2 Year 98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR'S COPY

GENERATOR
TRANSPORTER
FACILITY

STRAIGHT BILL OF LADING

Short Form - Original - Not Negotiable

Driver Name _____

Carrier's No. 130027 3

Manifest No. ~~3021 15~~

Code No. ~~10/28/98~~

Date _____

S▼J TRANSPORTATION CO.
1176 U.S. Route 40
P.O. Box 169
Woodstown, N.J. 08098
(609) 769-2741

CONSIGNEE	CHEMTRON CORP	FROM SHIPPER	~~ONTARIO SPECIALTY~~ SKW Metals + A
STREET	36850 SCHNEIDER CT	STREET	~~333 ERIESON STREET~~ 413 Witmer rd
DESTINATION	AVON STATE OH ZIP 44011	ORIGIN	~~BUFFALO~~ NIAGARA STATE NY ZIP 14302
Contact		Contact	~~RICH~~ 716 446 8955
Phone No.	(440) 937-6348	Phone No.	~~(716) 856-3333~~ Vehicle Number 1808

No Shipping Units	HM	Kind of Packages, Description of Articles (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	ID Number	WEIGHT (subject to correction)
		SEE ATTACHED MANIFEST FOR DESCRIPTION OF MATERIALS			
		NON HAZ NONRCRA			
		LIST MANIFEST# Doc 98101			

Consignee _____ Date _____

Carrier Type	P/U Date	~~10/28/98~~	Cost		
	P/U Time	~~1030 AM~~ JIC	Del. Date	~~10/28/98~~	Gross Wt.
	In	Out	Del. Time	11 AM	Tare Wt.
Special Instruction & Explain Delay			In	Out	Net. Wt.
~~DRIVER: LOAD YOUR LOAD ACCORDING TO YOUR DELIVERIES~~			Bill To:		P.O. No.
~~ROUTE: BILL STOP 1ST 10TH PU~~					
~~DRP BY EATON 08315 000 1010 F45229~~			Contact:		Phone No. (707) 765-7135

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and in proper condition for transportation according to the applicable regulations of the Department of Transportation

SHIPPER: _____ PER: _____

DATE: _____

CARRIER - S▼J Transportation Co. - Woodstown, NJ 08098

PER: _____

DATE: 10/28/98

EMERGENCY RESPONSE TELEPHONE NUMBER: ( ) _____

Manned 24-hours/day by a person with knowledge of the hazards of the material and emergency response information or who has access to a person with that knowledge.

FOR HELP IN CHEMICAL EMERGENCIES INVOLVING SPILL, LEAK, FIRE OR EXPOSURE CALL TOLL FREE 1-800-424-9300 DAY OR NIGHT

DEC 12 1998

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N.Y.R.0.0.0.6.0.7.8.0 | Manifest Document No. 98101 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302
4. Generator's Phone (716 446-8955

Same

5. Transporter 1 Company Name: S & J Transportation Co. | 6. US EPA ID Number: N.J.D.0.7.1.6.2.9.9.7.6 | A. Transporter's Phone: 609 769-2741

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
Chemtron Corporation
35850 Schneider Ct.
Avon, OH 44011-1232
10. US EPA ID Number: O.H.D.0.6.6.0.6.0.6.0.9 | C. Facility's Phone: 800 676-5091

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non DOT Regulated Material U1998108AAK	0.0.3	M	1.0.1.6.5	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

A. Approval#
Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Harry H Hutton		1.0	2	98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
RC Slippey JR		1.0	28	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
William Chiasson		1.0	2.9	98

GENERATOR / TRANSPORTER / FACILITY

Printed by KELLER & ASSOCIATES, INC. 2 Hoosick, WI 54657-0068

ORIGINAL – RETURN TO GENERATOR

Documentation of Disposal/
Decon Pad Material

DECON Pad

Weight Tickets

C.I.D.

C.I.D. LANDFILL CHAFFEE SITE
716/496-5000

TICKET NUMBER: 282082
CUSTOMER NUMBER: 72229.000

CAPITOL ENVIRONMENTAL

8229 BOONE BLVD.
VIENNA, VA 22182

TRUCK NUMBER: 8200
ROUTE NUMBER:

THEIR TICKET #:
MANIFEST NUMBER:
CONTAINER TYPE: 35 35 YD DUMP TRAILER
YARDAGE: 35.00

TIME IN: 12:23:12
TIME OUT: 12:50:02

TICKET DATE: 11/09/98

GENERATOR NUMBER: 72229.001

SKW METALS & ALLOYS

4111 WITMER ROAD
NIAGARA FALLS, NY 14302

WASTE TYPE: CONT. SOIL (COV
APPLICATION #: 276 CONT. SOIL

LOCATION: 6I1600
MISC QUANTITY: 0.00

GROSS WEIGHT: 60,140
TARE WEIGHT: 33,580
NET: 26,560
TONS: 13.28

C.I.D.

C.I.D. LANDFILL CHAFFEE SITE
716/496-5000

TICKET NUMBER: 282148
CUSTOMER NUMBER: 72229.000

CAPITOL ENVIRONMENTAL

8229 BOONE BLVD.
VIENNA, VA 22182

TRUCK NUMBER: 8200
ROUTE NUMBER:

THEIR TICKET #:
MANIFEST NUMBER:
CONTAINER TYPE: 35 35 YD DUMP TRAILER
YARDAGE: 35.00

TIME IN: 15:08:51
TIME OUT: 15:58:57

TICKET DATE: 11/09/98

GENERATOR NUMBER: 72229.001

SKW METALS & ALLOYS

4111 WITMER ROAD
NIAGARA FALLS, NY 14302

WASTE TYPE: CONT. SOIL (COV
APPLICATION #: 276 CONT. SOIL

LOCATION: 6I1600
MISC QUANTITY: 0.00

GROSS WEIGHT: 62,500
TARE WEIGHT: 33,680
NET: 28,820
TONS: 14.41

Sent to Scott 11/16

C.I.D. LANDFILL, INC.
10860 Olean Road
Chaffee, New York 14030-9799
Tel: 716/496-5000
Fax: 716/496-5500

CERTIFICATE OF DISPOSAL

Date: 11/9/98 Time: 3:00 PM

Customer Name: Capital Environmental

Customer Address: 8229 Boone Blvd.
Vienna VA. 22182

I hereby certify that I have disposed and destroyed material delivered to C.I.D. Landfill, Inc. from the above-referenced customer on the above-referenced date.

Scale ticket # 282082
282148

C.I.D. LANDFILL, INC.

By: Michael Glasner

Printed Name

Michael Glasner

(Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. N Y R 0 0 0 0 6 0 7 8 0 | Manifest Document No. | 2. Page 1 of 1

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302
4. Generator's Phone (716) 446-8955

5. Transporter 1 Company Name: Price Trucking
6. US EPA ID Number: N Y D 0 4 6 7 6 5 5 7 4
A. Transporter's Phone: 800 825-6001

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address
C.I.D. Landfill, Inc.
10860 Olean Road
Chaffee, NY 14030-9799
10. US EPA ID Number: N / A
C. Facility's Phone: 716-496-5000

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non Dot Regulated Material (Soil)	1	CM	Approx 6.00 15	T
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Scott Pfohl Signing For Skip Hutton | Signature: Scott Pfohl for Skip Hutton | Month 11 | Day 04 | Year 98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Frank Wilson | Signature: Frank Wilson | Month 11 | Day 04 | Year 98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR — TRANSPORTER — FACILITY

Printed by J. ENGELLER & ASSOCIATES, INC. Neenah, WI 54957-0001

ORIGINAL – RETURN TO GENERATOR

NCR-6182 - 96 Rev. 1/97

Please print or type
(Form designed for use on elite (12-pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of
N Y R 0 0 0 6 6 0 7 8 0		1

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302

4. Generator's Phone (716) 446-8955

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Price Trucking	N Y D 0 4 6 7 6 5 5 7 4	800 825-6001
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
C.I.D. Landfill, Inc. 10868 Olean Road Chaffee, NY 14030-9799	N / A	716-496-5000

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non Dot Regulated Material (Soil)	1	C M	Approx 1	T
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

Keller & Associates

GENERATOR'S COPY

NYS-6 Rev. 1/97

Please print (or type)
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: N Y R 0 0 0 0 6 0 7 8 0
Manifest Document No.:
2. Page 1 of 1

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302
4. Generator's Phone (716) 446-8955

5. Transporter 1 Company Name
Price Trucking
6. US EPA ID Number: N Y D 0 4 6 7 6 5 5 7 4
A. Transporter's Phone: 800 825-6001

7. Transporter 2 Company Name
8. US EPA ID Number
B. Transporter's Phone

9. Designated Facility Name and Site Address
C. I. D. Landfill, Inc.
10860 Olean Road
Chaffee, NY 14030-9799
10. US EPA ID Number: N / A
C. Facility's Phone: 716-496-5000

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non Dot Regulated Material (Soil)	1	C M	Approx 0.0015	T
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Scott Pfohl Supervisor SKIP HUTTON	Scott Pfohl for SKIP HUTTON	11	04	98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Travis Wilson	Travis Wilson	11	04	98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR

TRANSPORTER

FACILITY

Printed by: KELLER & ASSOCIATES, INC.
WI 54657-0355

ORIGINAL – RETURN TO GENERATOR

12-BLS-CC Rev. 1/97

Please print or type.
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
N Y R 0 0 0 0 6 0 7 8 0		

3. Generator's Name and Mailing Address
SKW Metals & Alloys
411 Witmer Road; Niagara, NY 14302

4. Generator's Phone (716) 446-8955

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Price Trucking	N Y D 0 4 6 7 6 5 5 7 4	800 825-6001
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
C.I.D. Landfill, Inc. 10860 Olean Road Chaffee, NY 14030-9799	N / A	716-496-5000

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-RCRA, Non Dot Regulated Material (Soil)	1	CM	Approx 1	T
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Emergency Contact: Capitol Environmental Services (800) 560-2374

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		10	21	97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR
TRANSPORTER
FACILITY

PRINTED BY LAKEFRONT GRAPHICS
Norcross, GA 770-263-0000

GENERATOR'S COPY

Appendix K

GZA Report

2.3269.22

RECEIVED
NOV 23 1998

GZA

DAILY FIELD SUMMARY REPORTS AND LABORATORY TEST DATA FOR SKW METALS AND ALLOYS, INC. CUT-OFF WALL AND FINAL COVER CONSTRUCTION NIAGARA FALLS, NEW YORK

PREPARED FOR:
SKW Metals and Alloys, Inc.
c/o Lan Associates
St. Augustine, Florida

PREPARED BY:
GZA GeoEnvironmental of New York
Buffalo, New York

November 1998
File No: 55252

Copyright©1998 GZA GeoEnvironmental of New York

GZA
GeoEnvironmental
of New York

*Engineers and
Scientists*

November 20, 1998
File No. 55252

Mr. Skip Hutton
Lan Associates, Inc.
66 Cuna Street
St. Augustine, Florida 32084

Re: Daily Field Summary Reports
and Laboratory Test Data for
SKW Metals and Alloys, Inc.
Cut-Off Wall and Final
Cover Construction
Niagara Falls, New York

364 Nagel Drive
Buffalo
New York 14225
716-685-2300
FAX 716-685-3629
http://www.gza.net

Dear Mr. Hutton:

This data report contains the Daily Field Summary Reports and Laboratory Test Data completed by GZA GeoEnvironmental of New York (GZA) for the above referenced project at SKW Metals and Alloys, Inc.'s site in Niagara Falls, New York. GZA prepared this data report as requested and authorized by Lan Associates on behalf of SKW Metals and Alloys, Inc.

This data report contains the following.

Appendix A Daily Field Summary Reports D-1 (August 20, 1998) through DS-29 (October 26, 1998)

Appendix B Pre-Construction Laboratory Test Data for the Walck Clay Borrow Source in Grand Island, New York

Appendix C Shelby Tube Permeability Results
- C1 Cut-Off Wall "A" Shelby Tubes
- C2 Cut-Off Wall "B" Shelby Tubes
- C3 Final Cover System Shelby Tubes

Appendix D Shelby Tube Sample Locations

Appendix E Shelby Tube Sample Density and Moisture Content Data

Appendix F Shelby Tube Sample Lift Interface Observations

Appendix G Topsoil Borrow Source Laboratory Test Data

A Subsidiary of GZA
GeoEnvironmental
Technologies, Inc.

An Equal Opportunity Employer M/F/V/H

Please contact the undersigned should you have any questions regarding this information.

Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK

John J. Danzer, P.E.
Senior Project Manager

Enclosures: Data Report (1 Bound Copy & 1 Unbound Copy)

cc: E. Bredniak-SKW (1 Bound Copy)

APPENDIX A

DAILY FIELD SUMMARY REPORTS
DS-1 (AUGUST 20, 1998) THROUGH DS-29 (OCTOBER 26, 1998)

DAILY FIELD SUMMARY

DATE 8-20-98 FILE No. 55252

REPORT No. DS-1 SHEET 1 of 2

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 70°-80° F Sunny

REMARKS

REPORT

- Upon arrival to the site (0700), site is generally dry. SLC has a loader truck working on hauling clean the haul roads. There are some wet areas within the substantial ground with ES 414, 413, 391 and 392

- SLC is placing Walck Pit clay within CQA Area "C". Lift is being installed in an approximately 8-9 inch loose lift and is being compacted to an approximately 6 inch lift with a Hamm 2410CH sheepsfoot vibratory roller. Roller is making at least 4 passes on the clay (2 passes running east and west and 2 passes running north and south).

- GZA performed moisture/density tests on clay at various locations (see attached sheet for test locations and test results).

- GZA is performing hand augers at various locations in order to determine thickness of clay.

Station	Depth	Station	Depth
417	5 7/12"	395	1 1/2"
434	6 3/4"		

- GZA observed the following equipment on site: Caterpillar 215B L.F. backhoe with dirt tamper, Komatsu 200 Backhoe, Hamm 2410CH sheepsfoot vibratory roller, Komatsu D37P Bulldozer, and a water truck.

- According to the specs for this job the imported clay is not to have stones greater than 3/4 inch. David Crain of SLC had indicated that a laborer would be removing any stones greater than 3/4 inch from clay. GZA has not observed any laborer removing stones.

GZA leaves site 1715

Field Time 9.5
Travel Time 1.0
Office Time
Total Time 10.5

GZA

Todd Schantz
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Witmer Road; Town of Niagara, New York

CONTRACTOR S.L.C. Constructions, Inc.

DATE 8-20-98

FILE No. 552.52.

TECHNICIAN TJS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	ST 440 0/S 10 E	6"	106.9	22.8	A	100.4	
2	ST 459 0/S 10 N	6"	98.4	22.4	A	92.4	See Test # 5
3	ST 459 0/S 10 N	6"	98.6	22.6	A	92.6	See Test # 6
4	ST 395 0/S 5 N	6"	101.3	23.2	A	95.1	
5	Retest # 2	6"	106.1	22.7	A	99.6	Recompacted
6	Retest # 3	6"	106.0	23.1	A	99.5	Recompacted - Truck Traffic
7	ST 474 0/S 5 N	6"	105.7	22.7	A	99.2	
8		6"					
9		6"					
10		6"					
11		6"					
12		6"					

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	105.5	22.0	Walck Pit - Grand Island, N.Y.

REMARKS

DAILY FIELD SUMMARY

DATE 8-21-98 FILE No. 55252

REPORT No. DS-2 SHEET 1 of 2

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys Inc CONTRACTOR SLC Constructors, Inc

WEATHER CONDITIONS 80°F - Sunny

REMARKS

REPORT

- Upon arrival on the site (0700) the site is generally dry. SLC has a water truck working on watering down the haul roads. There are some wet areas within the sub-grade around test pits 411, 413, 341, and 342.

- SLC is placing Waller clay within Cap Area "C" + "A" that is being installed in an approximately 2-0 inch loose lift and is being compacted in an approximately 6 inch lift with a 4 amm 24105E Sheepsfoot roller, roller is making 6 passes on the slow (2 passes overlapping each other, 2nd 2 passes running in the opposite direction).

- GZA is performing moisture/density tests on clay at various locations (see attached sheet for test locations and results).

- GZA is performing visual subgrade observations at various locations in subgrade preparation activities of clay.

Station	Depth	Station	Depth	Station	Depth	Station	Depth
458	5½"	493	7½"	422	5"	484	5½"
475	8½"	472	6 1/2"	405	5½"	474	5"
457	5½"	417	6 1/4"	390	6"	492	5¾"

- GZA observed the following equipment on site: Caterpillar 215 BLC Excavator w/Plate Compactor, Komatsu 200 Excavator, Hanna 210SR Excavator w/Vibratory roller, Hanson D30D Bulldozer, John Deere 850C Bulldozer, and a water truck.

- According to the specs for the installation clay is not to have stones greater than 3/4 inch. GZA observed a Leander Excavator placing stones from underneath clay.

- GZA observed SLC Excavating Contractor using Cap "B" Borrow/Waste Contractor (Joe B. Excavation) to excavate clay. Placement of Waller clay to 8"-10" of loose compacted to 6".

- 2nd lift was placed on Cap Area "C" - Both Waller and waste underneath 1st lift secondary liner was not damaged. 1st lift - Schutmaat 850 Bulldozer was used to scarify surface. SLC states a Dozer will be brought on site to scarify 1st lift before final lift will be placed.

1730 GZA leaves site

Field Time 9.5
Travel Time 1.0
Office Time
Total Time 10.5

Patrick McLaney
PREPARED BY

TOTAL P.02

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR SLC CONTRACTORS, INC.

DATE 8-21-98

FILE No. 557.57.

TECHNICIAN F MULCAHY

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	Trench Line TS 55' West of Fence Line	-3'4" below S.G.	108.1	22.9	A	101.5	
2	ST 488 @ 5' North	6"	104.9	22.1	A	98.4	
3	SI 493 @ 5' North	6"	101.3	22.1	A	95.1	
4	SI 479 @ 10' North	6"	107.8	22.0	A	101.2	
5	SI 465 @ 5' North	6"	94.1	22.1	A	88.3	See #7
6	Cement Wall Line B 50' West of Fence Line	10" below S.G.	107.1	22.0	A	100.5	
7	SI 465 @ 5' North	6"	103.0	22.4	A	96.7	Retest #5
8	SI 491 @ 5' North	6"	101.3	22.0	A	95.1	
9	SI 477 @ 5' North	6"	101.2	22.1	A	95.0	
10	SI 463 @ 5' North	5"	106.1	22.5	A	99.6	
11	SI 447 @ 5' North	6"	101.2	22.0	A	95.0	
12							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	21.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

GZA

REMARKS

DAILY FIELD SUMMARY

DATE 9-22-98 FILE No. 55252

REPORT No. DS-3 SHEET 1 of 2

PROJECT Cut-Off Wall & Rec Const. LOCATION Witmer Road : Niagara Falls, N.Y.

OWNER SKW Metals & Alloys, Inc CONTRACTOR SLC Construction, Inc.

WEATHER CONDITIONS Overcast 70°F

REMARKS

REPORT

- Original Access Trench 5-5 (min). Size is generally demo-Sticks Main trench base. West cells Remain with subgrade Access structure Elev. 573.2 and 572. SLC has a water-truck + Vacuum truck. Excess water.

- GZA is conducting hand augers at various locations throughout to determine thickness of clay at Silos 1 + 2.

Stations	North	Stations	South
Between 452-454	7"	Between 401-403	5"
Between 447-447	6"	Between 452-443	2"
Between 441-442	5 1/2"		

- SLC is placing Wacker clay within Cell Area "A" that is being installed in an alternating 3-0 inch loose lift and is being compacted in an alternating direction with a Hamm 2410 50 Sheepsfoot Vibratory roller. Roller is making 6 passes per lift (2 passes forward and reverse, and 2 passes of static weight each).

- GZA observed the following Equipment on Site: Hamm 2410 50 Sheepsfoot Vibratory roller, Komatsu PC 330 Excavator, John Deere 450 Bulldozer, and 2 water Trucks.

- SLC has started to place Geomembrane liner in Cell Area "C"
- SKW Field rep. asked for Sample Stakes to be all-set and one of grade stakes be constructed on 1st lift
- SLC has brought a Bucket Alarm backup to John Deere 850 B Dozer in Service (A.L.)
- Several additional stations (452 thru 443 were observed) to have a thickness of 2 to 4 inches - Bucket did not Subgrade to this Extent
- Considering moisture and condition of Area Clay Stations:
- GZA is determining moisture/Content test on clay at various locations (see marked SHEET for test locations and test results).
- According to the specs for the Job the material clay is not to have stones greater than 3/4 inch, GZA has observed a laborer removing stones from imported clay
- SLC is Scarifying at Second lift in Area "C" - Contact between 1st & 2nd Lift was Planar
- Second lift was Rolling at Light 1st Light
- GZA reports 1H 30

Field Time 6.5
Travel Time 1.0
Office Time
Total Time 7.5

P. Mulcahy
PREPARED BY

US3 7"

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR SLC CONSTRUCTORS, INC.

DATE 8-22-98

FILE No. 55752.

TECHNICIAN P. Molesky

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	Station 445 @ 20' North	6"	105.8	21.5	A	99.3	See Test # 4
2	Station 412 @ 25' North	6"	101.8	25.1	A	95.6	
3	Station 368 @ 25' North	6"	102.6	22.3	A	96.3	
4	Station 445 @ 15' North	6"	104.9	22.5	A	98.4	Retest #1
5	Station 414 @ 25' North	6"	101.3	22.1	A	95.1	
6	Station 370 @ 25' North	6"	103.1	20.1	A	96.7	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

REMARKS

DAILY FIELD SUMMARY

DATE 8-24-98 FILE No. 55252

REPORT No. DS-14 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 75° - 85° F Overcast

REMARKS

REPORT

- Upon arrival to the site (0700) site was generally dry. SLC had water truck on site in order to wet down haul road and also to wet down clay being installed.

- SLC is excavating 1st lower 2 clay in order to set a bond between 1st lift and 2nd lift. SLC is excavating 2nd lift within cap area. Lift being excavated is approximately 8-9 inch loose lift and is being compacted to 6 inches with a sheepsfoot roller, at least 4 passes (2 running north and south and 2 running east and west).

- GZA observed the following equipment on site: Komatsu D355 Bulldozer, John Deere 850 Bulldozer, Caterpillar 215 B LC Backhoe with dirt bucket, Komatsu 200 backhoe and a water truck.

- GZA also observed the following personnel on site: 1 SLC Superintendent, 1 Foreman, 4 operators, 3 laborers and 5± truck drivers.

- GZA is performing moisture/density tests at various locations within cap area (see attached figure and coordinates/test locations and test results) LABD SHEET

- SLC is compacting around grade stake with a plate tamper. moisture/density tests indicate that compaction is not being achieved. SLC is then allowing grade stakes to approximately 4 feet east then compacting area with a vibratory padfoot roller and achieving compaction.

- The area between stations 427 and 435 northward to station 441 and 450 has been rejected by Skip Hilton of Lu Engineers due to thickness of lift (only 3-4" thick) and also due to lift #2 not bonding with lift #1.

GZA leaves site 1700

Field Time 9.5
Travel Time 1.0
Office Time .5
Total Time 11.0

Todd Schatz
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTORS, INC.

DATE 8-24-98

FILE No. 557.52.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	Station 438 @ 25' Mod.	6"	106.8	22.1	A	100.3	
2	Station 394 @ 25' Mod.	6"	101.6	22.5	A	98.1	
3	St. 416 @ 1' E	6"	96.2	12.4	A	90.1	See test # 6
4	St. 471 @ 1' N	6"	99.4	12.5	A	93.3	
5	ST 394 @ 1' N	6"	105.9	22.2	A	99.4	
6	Retest # 3	6"	100.8	13.2	A	94.6	Watered + Recompacted See test # 8
7	ST 467 @ 3' N	6"	96.5	15.2	A	90.6	See Test # 8
8	Retest # 7	6"	110.4	20.1	A	103.6	Watered + Recompacted
9	ST. 372 @ 5' N	6"	103.3	22.3	A	97.0	
10	ST 415 @ 5' N	6"	106.4	21.8	A	99.8	
11							
12							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

REMARKS

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

Approximate Limits of Lift # 2 Clay Installation (Area not completely rolled for compaction, will test when ready)

DISTURB

GATE

LINE – AREA "E"

AREA "D" – 1" CRUSHED STONE USED AS FILL

PLAN – DEPTH STAKE LAYOUT

50 100

1/2 - Bottom = Indicates Lift #

Date: 8-24-78

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.

Dwg. File No. 3269

Job No. 2.326

DAILY FIELD SUMMARY

DATE 8-25-98 FILE No. 55252

REPORT No. DS-5 SHEET 1 of 2

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 70° - 80°F Overcast

REMARKS

REPORT

- Upon arrival to the site (noon) the site was observed to have standing water throughout interior areas of site. SLC is pumping standing water with 2" pump.

- SLC is continuing to excavate cut-off wall "R". Initial excavation began approximately 44'-0" from the southern fence (an arrow stake is also to measure from). SLC excavated down approximately 8-9 feet using 12-5 inches into underlining clay. Cut-off wall is being backfilled in approximately 8-10 inch "lifts" and is being removed with a Caterpillar 215 RLC backhoe with elite bucket to an approximately 6" lift. The bulk of wall "R" completed is approximately 45' deep.

- GZA observed the following equipment on site: Komatsu WA90 Rubber Caterpillar 215 RLC backhoe with elite bucket, Komatsu 220 backhoe, Terex D19 dump truck, and a Fork 555 Rubber Tire Backhoe.

- GZA observed the following personnel on site: 1 Foreman, 4 operators, and 2 Laborers.

- GZA obtained moisture/density test within the layer of cut-off wall "R" (see attached sand cone test results).

- GZA took a shelby tube from the layer of cut-off wall "R" from 10' east of the east fence for laboratory analysis. Also took a shelby tube sample from within layer (≈ 4' from the of clay) of cut-off wall "R" from approximately 120' east of the east fence. Tests were labeled as such: CW-R-2 (Top layer) and CW-R-3 (middle layer).

GZA leaves site

Field Time 8.0
Travel Time 1.0
Office Time .5
Total Time 9.5

GZA

Todd Schatz
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 8-25-98
FILE No. 557.57
TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	100' o/s from Test Fence	6"	104.8	22.5	A	98.4	Middle Lift
2	"	6"	106.1	22.6	A	99.6	between Middle & Top Lift
3	"	6"	106.4	22.1	A	99.9	Top Lift
4	115' o/s from Test Fence	6"	105.3	22.4	A	98.8	Middle Lift
5	"	6"	104.4	23.1	A	98.0	between Middle & Top Lift
10	"	6"	105.8	22.6	A	99.3	Top Lift
7	135' o/s from Test Fence	6"	106.1	22.1	A	99.6	Middle Lift
8	"	6"	101.8	23.6	A	95.6	between middle & Top Lift
9	"	6"	103.2	23.3	A	96.9	Top Lift

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	Walck Borrow Site - Grand Island, New York

GZA

REMARKS

DAILY FIELD SUMMARY

DATE 8-26-98 FILE No. 55252

REPORT No. DS-16 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructions, Inc.

WEATHER CONDITIONS 75°-85° F Sunny

REMARKS

REPORT

- Upon arrival to the site (0700) site personnel to the east SLC is continuing to pump extensively wet areas of site with 3" submersible pump.

-

- GZA observed the following equipment on site: Komatsu 200 Backhoe Caterpillar 215 SLC Backhoe with plate hammer Komatsu D31P Dozer, John Deere 850C Bulldozer, John Deere 550 G Bulldozer, Terex 214 Dump Truck, Ford 55E Rubber Tire Backhoe, Ingersoll Rand SD 24 Padfoot Vibratory Roller

- GZA observed the following personnel on site: 1 SLC Superintendent, 1 Foreman, 4 operators, and 4 laborers

- SLC is continuing to excavate cut-off wall "R". Initial excavation began at approximately Station 39+00 o/c 5-10 feet east. SLC is excavating down approximately 10'-8 feet from top of clay and into approximately 12-15" into underlying clay. Next wall is being backfilled in approximately 8-10 inch lifts and is being contained to 6 inches with Caterpillar 215 RIC Backhoe with plate hammer and also with Ingersoll Rand SD 24 Padfoot vibratory roller. Total length of cut-off wall "R" completed today is approximately 50 ft.

- GZA is performing moisture/density tests within cut-off wall "R"/Geo attached fabric and approximate test locations and test results). GZA is also performing moisture/density tests within Geo area (see attached figure for approximate test locations and test results).

- GZA took Shelby Tube (FC-2-1) from St. 43+05 25' East for laboratory analysis and Shelby Tube (FC-2-1A) from same area for Visual Inspection.

- Within problem area of Geo area as identified by SKW Hutton et. al Associates SLC is removing 2nd lift of Clay (approximately 3-5") scarifying top of 1st lift and adding water (if necessary). SLC will then install 2nd lift of clay compact this lift in order to bond 1st and 2nd lift together. SLC will then excavate a test pit and it will be determined by SKW Hutton if a sufficient bond has been achieved.

GZA leaves site 1545

Field Time 8.0
Travel Time 1.0
Office Time
Total Time 9.0

Todd D. Schatz
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTORS, INC.

DATE 8-26-98

FILE No. 53757.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St 396 o/s 5 ft. East	6"	101.8	24.7	A	95.6	Middle Lift
2	"	6"	102.4	25.6	A	96.1	Between middle & Top lift
3	"	6"	102.7	25.1	A	96.4	Top lift
4	ST 467 o/s 10 Ft. North	6"	102.1	22.8	A	95.9	
5	ST 481 o/s 4 Ft. North	6"	103.7	23.2	A	97.4	
6	ST 494 o/s 10ft. North	6"	101.8	21.6	A	95.5	
7	ST 472 o/s 10 ft. North	6"	106.1	23.4	A	99.6	
8	ST 486 o/s 10 ft North	6"	104.1	25.2	A	97.7	
9	Offset 30' South of St 396 o/s 5 ft. East	6"	101.9	25.0	A	95.7	Middle Layer
10	"	6"	103.4	24.9	A	97.1	Between Middle & Top Layer
11	"	6"	102.7	25.5	A	96.4	Top Layer
12							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

GZA

REMARKS

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

Tests 1-3 taken within the cut-off wall

Tests 9-11 taken within the cut-off wall

Approximate Locations of Moisture/density tests

1/2 – top # indicates test number
– bottom number indicates lift #

Approximate limits of Clay Installation

GATE

AREA "D" – 1" CRUSHED STONE USED AS FILL

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269

Job No. 2.326

DAILY FIELD SUMMARY

DATE 8-27-98 FILE No. 55252

REPORT No. DS-7 SHEET 1 of 4

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructions, Inc

WEATHER CONDITIONS 70° - 85° F Sunny

REMARKS

REPORT

- Upon arrival to the site (0700) site personnel assembly had. There are a couple of inch thick on cap area. SLC is working down (backfilling) to meet to Control Point.

- GZA observed the following equipment on site: Komatsu 200 Backhoe (Caterpillar 215 B Backhoe with clam shovel, Komatsu WA90 Wheel Loader, John Deere 550 C Bulldozer, John Deere 550 G Bulldozer, Terex S19 Dump Truck, Ford 555C Rubber Tire Backhoe, Hamm 2414 SA Padfoot Vibratory Roller, and a water truck.

- GZA observed the following personnel on site: 1 SLC Superintendent, 1 Foreman, 4 operators and 4 laborers and 2 surveyors from Klaske Surveying.

- SLC is continuing to excavate cut-off "B". Initial excavation began at approximately 10 ft off-east end of the Rail and Wheel Shop and going approximately 5-7 feet from top of clay and then approximately 12-15 inches into undisturbed clay. Cut-off wall is being backfilled in approximately 8-10 foot lifts and is being compacted to approximately 6 inches with Caterpillar 215 B Backhoe with clam shovel. Total length of finished wall "B" completed today is approximately 90 feet.

- SLC is excavating Pit #1 and Pit #2 within cap area then backfilling down clay in order to create a bond between existing fill & clay.

- SLC is installing Leak Pit Clay within cap area. Lifts to being installed is approximately 8-9 inch lifts and being compacted to approximately 6 inches with the Hamm 2414 SA Padfoot vibratory roller. Roller is making at least 4 passes on clay (2 running north and south and 2 running east and west). See attached figure for approximate limits.

- GZA is performing monitoring/boundary test pits within cap area and also within cut-off wall (see attached location plan for approximate test pit locations and test results). GZA took Shelby Tube sample (CW-B-4) from within lower 1 ft of cut-off wall "B" at approximately 20' south of TP-39A and Shelby Tube (CW-B-5) from bottom 1 foot of cut-off wall "B" at approximately 40' south of TP-39A.

GZA leaves site 1730

Field Time	10
Travel Time	1
Office Time	
Total Time	11.0

GZA

Todd Schaaf

PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Witmer Road; Town of Niagara, New York

CONTRACTOR S.L.C. Constructions, Inc.

DATE 8-26-98

FILE No. 552.57.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	offset 60' South of St. 516 offset 5' East	6"	104.1	23.0	A	97.7	Middle Layer
2	"	6"	103.4	24.1	A	97.1	Between middle & Top Layer
3	"	6"	104.4	23.3	A	98.0	Top layer
4	offset 40' North of St. 350 offset 5' East	6"	103.5	25.6	A	97.1	Middle Layer
5	"	6"	104.3	24.2	A	97.9	Between middle & Top layer
6	"	6"	105.8	23.8	A	99.3	Top Layer
7	offset 30' North of St 350 offset 5' East	6"	104.1	23.6	A	97.7	Middle Layer
8	"	6"	106.1	23.3	A	99.6	Between Middle & Top Layer
9	"	6"	104.3	24.1	A	97.9	Top Layer
10	St. 474 offset 4' North	6"	98.8	22.8	A	93.7	See Test #: 15
11	St. 488 offset 10' North	6"	105.1	25.7	A	98.7	
12	St 493 offset 10' North	6"	105.4	22.4	A	99.0	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	105.5	22.	Wauck Pit - Grand Island, N.Y.

GZA

REMARKS

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 8-26-98
FILE No. 552.57.
TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
13	St. 479 offset 5' North	6"	102.4	26.0	A	96.1	"
14	St. 465 offset 5' North	6"	102.9	25.6	A	96.6	
15	Retest #10	6"	104.1	25.2	A	97.7	Recompacted
16							
17							
18							
19							
20							
21							
22							
23							
24							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	105.5	22	Walck Pit - Grand Island, N.Y.

GZA

REMARKS

8-27-98

PROPERTY LINE – AREA "E"

Approximate limits of Lift #2 Clay Installation (not filled for completion)

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

Approximate Locations of Moisture/Density Tests

1/2 – Top # indicates test #
1/2 – Bottom # indicates lift #

Moisture/Density tests 1-5

Moisture/Density tests 1-6

Moisture/Density tests 1-4

599.3 599.4 599.5 599.6 599.7

599.9 599.1

15'

600

605

STURB ATURE

Approximate Limits of Lift #3 Clay Installation

GATE

AREA "D" – 1" CRUSHED STONE USED AS FILL

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269

Job No. 2.326

DAILY FIELD SUMMARY

DATE 8-28-98 FILE No. 55252

REPORT No. DS-8 SHEET 1 of 4

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road; Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 70°-85°F Sunny

REMARKS

REPORT

- Upon arrival to the site (0700), the site appears to be generally dry. SLC has water trucks working down haul roads in order to control dust. SLC is also working down clay within the area in order to create a good bond between lifts.

- GZA observed the following equipment on site: Komatsu 200 Backhoe Caterpillar 215 BLC Backhoe with dirt tamper Komatsu D38? Bulldozer John Deere 850 C Bulldozer John Deere 550 G Bulldozer, Terex 860 Dump Truck, Ford L55 Rubber Tire Backhoe, Ingersoll 24in SD Padfoot Vibratory Roller, and a water truck.

- GZA observed the following personell on site: 1 SLC Superintendent 1 Foreman 4 operators and 4 laborers, also 2 representatives from the NYSDEC.

- SLC is continuing to excavate cut-off wall "B". Initial excavation began at approximately St. 350 o/s 10' East. SLC is excavating down approximately 5-7 feet and going approximately 12-15 inches into underlying clay. Cut-off wall is being backfilled in approximately 8-10 inch loose lifts and being compacted to 6 inches with Caterpillar 215 BLC backhoe with dirt tamper. Approximate length of cut-off wall completed today is 80-90 feet.

- SLC is continuing to install Waterstop Clay within cap area (see attached figure for approximate limits). Clay is being installed in approximately 6-8 inch loose lifts and being compacted to 6 inches with Ingersoll 24in SD Padfoot Vibratory Roller. roller is making at least 4 passes on clay (2 running north & south, and 2 running east & west).

- GZA is performing moisture/density tests within cap area and also within cut-off wall (see attached figures for approximate test locations and test results). GZA took Shelby Tube Sample (FC-2-2) from St. 349 offset 25' East and Shelby Tube (FC-2-3) from St. 435 offset 25' North for laboratory analysis. GZA took Shelby Tube samples (FC-2-2A and FC-2-3A) for visual inspection of bonding between lifts #1 and lift #2. GZA also took Shelby Tube (CW-B-A1) from top layer of cut-off wall "B" from St. 350 o/s 10' East.

GZA leaves site 1700

Field Time 9.5
Travel Time 1.0
Office Time
Total Time 10.5

GZA

Todd D. Schara
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Witmer Road; Town of Niagara, New York

CONTRACTOR S.L.C. Constructors, Inc.

DATE 8-28-98

FILE No. 552.57.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	ST 440 O/S 5' North	6"	104.1	22.9	A	97.1	
2	ST 372 O/S 3' North	6"	107.1	22.4	A	100.5	
3	ST 440 O/S 10' North	6"	104.6	22.4	A	98.2	
4	ST 419 O/S 5' North	6"	104.7	22.5	A	98.3	
5	ST 457 O/S 10' North	6"	106.4	23.7	A	99.9	
6	ST 436 O/S 5' North	6"	106.1	22.8	A	99.6	
7	ST 392 O/S 5' North	6"	103.8	23.0	A	97.4	
8	ST 348 O/S 10' North	6"	102.3	23.2	A	96.0	
9	ST 350 O/S 10' East	6"	104.4	23.6	A	98.0	Middle Lift of cut-off wall
10	"	6"	106.3	22.2	A	99.8	between middle & Top Lift
11	"	6"	103.8	23.9	A	97.5	Top Lift
12	Offset 60' South of St. 350 O/S 10' East	6"	104.4	23.9	A	98.0	Middle Lift

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	105.5	22.	Walck Pit - Grand Island, N.Y.

REMARKS O/S - offset, ST - Station

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Witmer Road, Town of Niagara, New York

CONTRACTOR S.L.C. Constructors, Inc.

DATE

FILE No. 55257.

TECHNICIAN

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
13	Offset 60' South of SL 350 O/S 10' East	6"	104.1	24.1	A	97.1	Between Middle & Top Lift
14	"	6"	103.7	24.4	A	97.3	Top Lift
15					A-		
16							
17							
18							
19							
20							
21							
22							
23							
24							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	105.5	7.7	Walck Pit - Grand Island, N.Y.

REMARKS O/S - offset, ST - Station

PROPERTY LINE – AREA "E"

6-28-98

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

Approximate Limits of Lift #3 Clay Installation

Moisture/density tests 9, 10, 11

Moisture/density tests 12, 13, 14

599.4 599.5 599.6 599.7 599.3 599.2 599.1

15'

600

605

GATE

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

○ Approximate Locations of Moisture/Density Tests
1/ - Top # Indicates test #
/2 - Bottom # Indicates Lift #

AREA "D" – 1" CRUSHED STONE USED AS FILL

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269
Job No. 2.326

DAILY FIELD SUMMARY

DATE 8-31-98 FILE No. 55252

REPORT No. DS-9 SHEET 1 of 4

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructions, Inc.

WEATHER CONDITIONS 70° - 80° F Sunny

REMARKS

REPORT

- Upon arrival to the site (0700) the site appeared generally dry. SLC had a water truck wetting down haul roads in order to control dust.

GZA observed the following equipment on site: Komatsu 200 Backhoe (similar 215 SLC Backhoe with plate hammer Komatsu D38P Bulldozer John Deere 850 C Bulldozer John Deere 550 G Bulldozer Terex 19' Dump Truck Ford 555 Rubber Tire Backhoe Hamm 2410 SD Padfoot Vibratory Roller, and a Water Truck

- GZA observed the following personnel on site: 1 SLC Superintendent, 1 Foreman, 3 Operators and 4 Laborers.

- SLC is continuing to excavate cut-off wall "3". Initial excavation began at approximately St. 32+ offset 45 ft North. SLC is excavating down approximately 4 to 7 feet and going approximately 12-15 inches into the underlying clay. Cut-off wall is being backfilled in approximately 8-10 inch loose lifts and being compacted to 6 inches with Caterpillar 215 SLC Backhoe with plate hammer. Approximate length of cut-off wall completed today is 90 feet

- SLC is continuing to install Waldi #4 clay within rec area (see attached figure for approximate limits). Clay is being installed in approximately 8-9 inch loose lifts and being compacted to 6 inches with Hamm 2410 SD Padfoot Vibratory Roller. Roller is making at least 4 passes on clay (2 running north & south and 2 running east & west).

- GZA is performing moisture/density tests within rec area and also within cut-off wall "3" (see attached figures for approximate test locations and test results).

- GZA took Shelby Tube samples (CW-3-R-7) from bottom layer (approximately 3.5 ft below top of clay) at St. 32+ offset 55' South and Shelby Tube (CW-3-R-8) from between middle and top lift (approximately 1.5 ft below top of clay) from St. 32+ offset 55' for laboratory testing.

GZA leaves site 1730

Field Time 10.0
Travel Time 1.0
Office Time
Total Time 11.0

Todd D. Schaal
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Witmer Road; Town of Niagara, New York

CONTRACTOR S.L.C. Constructors, Inc.

DATE 8-31-98

FILE No. 552.57.

TECHNICIAN T.A.S

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 440 offset 5' North	6"	101.7	24.5	A	95.5	"
2	St. 459 o/s 5' North	6"	106.1	22.8	A	99.6	
3	St. 458 o/s 5' North	6"	109.5	22.6	A	102.8	
4	St. 391 o/s 5' North	6"	108.4	22.7	A	101.7	
5	St. 436 o/s 10' North	6"	102.6	23.6	A	96.3	
6	St. 457 o/s 10' North	6"	100.9	23.2	A	96.6	
7	St. 392 o/s 5' North	6"	104.7	22.7	A	98.3	
8	St. 348 o/s 5' North	6"	105.3	22.4	A	98.9	
9	St. 326 o/s 45' South	6"	101.6	24.6	A	95.4	Cut-off Wall Middle lift
10	"	6"	103.1	22.3	A	96.7	" Between Middle & Top lift
11	"	6"	104.4	22.8	A	98.0	" Top lift
12	St. 326 o/s 55' South	6"	102.1	24.6	A	95.8	Bottom lift Cut-off Wall

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.1	Walck Pit - Grand Island, N.Y.

REMARKS o/s - offset

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Witmer Road; Town of Niagara, New York

CONTRACTOR S.L.C. Constructors, Inc.

DATE 8-31-98

FILE No. 552.52.

TECHNICIAN TMS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
13	St. 32+0 o/s 55' South	6"	105.4	23.1	A	99.0	Middle Lift
14	"	6"	106.1	22.2	A	99.6	Between Middle & Top Lift
15	St. 46+1 o/s 10' North	6"	104.3	24.9	A	97.9	
16	St. 47+8 o/s 5' North	6"	101.9	24.3	A	95.7	
17	St. 49+2 o/s 10' North	6"	102.4	23.8	A	96.1	
18	St. 44+6 o/s 10' North	6"	100.1	22.0	A	93.9	See Test # 19
19	Retest # 18	6"	102.7	24.1	A	96.4	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.7	Walck Pit - Grand Island, N.Y.

REMARKS o/s = offset

8-31-98

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ Approximate moisture/density test locations

1/3 - top # indicates test #
1/3 - bottom # indicates lift #

Approximate Limits of Lift #2 Clay Installation - Not rolled for Compaction

Approximate Limits of Lift #1 Clay Installation

Moisture/Density Tests 9 & 11

GATE

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

AREA "D" – 1" CRUSHED STONE USED AS FILL

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269

Job No. 2.326

DAILY FIELD SUMMARY

DATE 9-1-98 FILE No. 55252

REPORT No. DS-10 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 60° - 75° F Sunny

REMARKS

REPORT

- Upon arrival to the site (noon) the site appeared to be generally dry. SLC had water truck spotting down haul roads to control the dust.

- GZA observed the following equipment on site: Komatsu 270 backhoe Caterpillar 235 BLC Backhoe with plate cutter Komatsu D85P Bulldozer John Deere 850C Bulldozer. John Deere 550G Bulldozer. Terex 2129 Dump Truck Ford 555 Rubber Tire Backhoe. Hamm 2414 SD Padfoot Vibratory Roller, and a Water Truck.

- GZA observed the following personell on site: 1 SLC Superintendent, 1 foreman, 2 Operators, and 4 Laborers, also 2 representatives from Kleinfelder surveying.

- SLC is continuing to excavate cut-off "B". Initial excavation began at approximately St. 305 offset 0' East. SLC is excavating down approximately 4-6 feet and being approximately 12-15 inches into underlying clay. Cut-off wall is being backfilled w/ approximately 8-10 inch loose lifts and being compacted to 6 inches with Caterpillar 215 BLC Backhoe with plate tamper. Approximate length of cut-off wall completed today is 90-00 feet. Cut-off wall "B" is complete.

- SLC is continuing to install backfill clay within CAP area (see attached figure for approximate limits). Clay is being installed in approximately 8-9 inch loose lifts and being compacted in 6 inches with Hamm 2414 SK Padfoot Vibratory Roller. Roller is making at least 4 passes on the clay (2 running north and south and 2 running east and west).

- GZA is performing moisture/density tests within CAP area and also within cut-off wall "B" (see attached figures for approximate test locations and test results).

- GZA took Shelby Tube samples (FC-2-4) from CAP area at St. 391 offset 25' East for laboratory analysis, also took shelby tube (FC-3-4A) for visual inspection in order to check the bond between 1st and 2nd lifts.

- GZA performed hand augers to determine thickness of Clay (at least 18") at the following locations: St. 415 O/S 25' East - 15.5-16 inches. St. 450 O/S 20' South - 18.5 inches. St. 415 O/S 15' East - 18 inch. St. 371 O/S 20' North - 24 inches.

GZA leaves site 1630

Field Time 9.0
Travel Time 1.0
Office Time
Total Time 10.0

GZA

Todd D. Schafer
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR SLC CONSTRUCTORS, INC.

DATE 9-1-98

FILE No. 557.52

TECHNICIAN TAS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 303 O/S 10' East	6"	101.8	24.6	A	95.5	Middle Lift (Cut-off Wall)
2	"	6"	102.4	23.9	A	96.1	Between Middle & Top Lift
3	"	6"	106.1	22.6	A	99.6	Top Lift
4	St. 413 O/S 10' North	6"	103.9	24.2	A	97.5	
5	St. 369 O/S 10' North	6"	104.3	25.6	A	98.1	
6	St. 335 O/S 5' North	6"	101.6	22.6	A	95.3	
7	O/S 20' South of St. 303 10' East	6"	103.9	24.9	A	97.5	Middle Lift (Cut-off Wall)
8	"	6"	101.7	25.2	A	95.4	Between Middle & Top Lift
9	"	6"	103.3	24.3	A	97.0	Top Lift
10		6"			A		
11		6"			A		
12		6"			A		

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

REMARKS St - Station, O/S - offset

7-1-98

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate Locations of Moisture Tests

1/2 - top number indicates test #
bottom number indicates lift #

599.4 599.5 599.6 599.7

5/3 4/3

599.3 599.2 599.1

15'

600

Approximate limit of Lift #1 of Clay Installation

GATE

AREA "D" – 1" CRUSHED STONE USED AS FILL

NE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269

Job No. 2.326

DAILY FIELD SUMMARY

DATE 9-2-98 FILE No. 55252

REPORT No. DS-11 SHEET 1 of 1

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 65°-75° F Overcast + - Rain

REMARKS

REPORT

- Upon arrival on the site (around), the site was generally moist / slight overnight rain).

- GZA observed the following equipment on site: Komatsu 200 backhoe, Caterpillar 215 RLC Backhoe with plate hammer Komatsu WA97 Bulldozer, John Deere 550 G Bulldozer, Terex 2519 Dump Truck, Ford 555' Rubber Tire Backhoe, Hamm DHP 50 Padfoot Vibratory Roller, and a Water Truck

- GZA observed the following personell on site: 1 SLC Superintendent, 1 Foreman, 4 Operators, and 4 Laborers.

- No work took place today associated with GZA's Scope of Work due to extensive rain.

GZA leaves site @ 1230

Field Time 3.0
Travel Time 1.0
Office Time
Total Time 4.0

GZA

Todd A. Schmidt
PREPARED BY

DAILY FIELD SUMMARY

DATE 9-3-98 FILE No. 55252

REPORT No. DS-12 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 60°-75° F Partly Sunny

REMARKS

REPORT

- Upon arrival to the site (0700) the site was generally moist due to rain from previous day.

- GZA observed the following equipment on site: Caterpillar 215 RLC Backhoe with plate tamper, Komatsu D38 P Bulldozer, John Deere 550 G Bulldozer, Ford 555 B Elbar Tire Backhoe, Hamm 2410 SD Padfoot Vibratory Roller, and a water truck.

- GZA observed the following personnel on site: 1 SLC Foreman, 3 Operators, and 4 Laborers.

- SLC is placing Work Fit clay within cap area along fence running along outside of cap area (see attached figure for approximate limits). Clay is being installed in approximately 8-9 inch loose lifts and being compacted to 6 inches with Hamm 2410 SD Padfoot Vibratory roller. Roller is making at least 4 passes on the clay (2 running north and south and 2 running east and west).

- GZA is performing moisture/density tests within cap area on previously installed clay (see attached figures for approximate test locations and test results). GZA also performing moisture/density tests along fence where clay is being installed.

- GZA took Shelby tube samples within cap area at the following locations: FC-3-1 - St. 470 0/S 20' North, FC-3-2 - St. 390 0/S 20' North, FC-3-3 - St. 415 0/S 5' North, FC-3-4 - St. 473 0/S 5' North, FC-3-5 - St. 451 0/S 5' East / these samples were taken for laboratory analysis). GZA also took Shelby tubes FC-3-1A, FC-3-2A, FC-3-3A, FC-3-4A, FC-3-5A at the same locations for initial inspection of the bonding between Lift #3 and Lift #2.

GZA leaves site 1530

Field Time 8.0
Travel Time 1.0
Office Time
Total Time 9.0

GZA

Todd D. Schara
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT COT-OFF WALL & CAP CONSTRUCTION

LOCATION WITTMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTORS, INC.

DATE 9-3-98

FILE No. 557.52.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 335 O/S 5' North	6"	103.1	23.4	A	96.7	
2	St. 369 O/S 5' North	6"	101.9	22.8	A	98.5	
3	St. 413 O/S 5' North	6"	101.7	23.4	A	95.5	
4	St. 446 O/S 5' North	6"	102.2	24.6	A	95.9	
5	St. 464 O/S 5' North	6"	103.3	24.3	A	96.9	
6	St. 478 O/S 5' North	6"	103.1	24.2	A	96.7	
7	St. 492 O/S 10' North	6"	102.5	23.7	A	97.2	
8	St. 451 O/S 35' East	6"	104.1	22.9	A	97.7	
9	St. 467 O/S 45' North	6"	102.6	23.8	A	96.3	
10	St. 481 O/S 40' North	6"	101.8	24.7	A	95.6	
11	St. 494 O/S 50' North	6"	102.4	24.2	A	96.1	
12							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

GZA

REMARKS St. - Station, O/S - offset

7-3-78

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

Approximate Limits of Clay Installation

○ - Approximate moisture/density test locations

1/3 - top number indicates test #
1/3 - bottom number indicates line #

TURB
EATURE

599.4 599.5 599.6 599.7 599.3 599.2 599.1

15'

600

605

GATE

LINE – AREA "E"

Approximate limits of previously placed clay

AREA "D" – 1" CRUSHED STONE USED AS FILL

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.

Dwg. File No. 3269

Job No. 2.325

DAILY FIELD SUMMARY

DATE 9-4-98 FILE No. 55252

REPORT No. DS-13 SHEET 1 of 2

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road; Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructions, Inc.

WEATHER CONDITIONS 65°-75° F Overcast

REMARKS

REPORT

Upon arrival to the site (1000) the site appeared to be moist (slight overnight rain).

- GZA observed the following equipment on site: Komatsu 200 Backhoe Caterpillar 215 B/C Backhoe with plate tamper, Komatsu D65A Bulldozer, John Deere 550 G Bulldozer, Ford 555 Rubber Tire backhoe, Hanni 200 SD Asphalt Vibratory Roller, and a Water Truck.

- GZA observed the following personnel on site: 1 SLC Foreman, 4 Operators, 4 Laborers,

- SLC is fine-grading clay within cap area.

- SLC is excavating Cut-off Wall "A". SLC is excavating down approximately 5-6 feet and using 12-15 inches into underlying clay. SLC is backfilling cut-off wall in approximately 8-10 inch loose lifts and compacting the lifts with Caterpillar 215 B/C backhoe with plate tamper. Approximate length of cut-off wall excavated today is

- GZA is taking moisture/density tests within cut-off wall "A" (see attached sheet for test results).

- GZA is performing hand augers to determine depth of clay at the following locations: St. 140 0/J 20' East - 14 inches < 1494 0/S 45' North - 14 inches < 1447 0/S 45' North - 11 3/4-12 inches, St. 142 0/S 30' East - 12-12.5 inches.

- GZA took Shelby Tube samples for Laboratory analysis from Cut-off Wall "A" at the following locations: CW-A-1 - middle lift - St. 1+05 0/S 25' South, CW-A-2 - top lift - St. 1+05 0/S 25' South.

GZA leaves site 1500

Field Time 5.0
Travel Time 1.0
Office Time 2.0
Total Time 8.0

GZA

Todd D. Schaefer
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR SLC CONSTRUCTORS, INC.

DATE 9-4-98

FILE No. 557.52

TECHNICIAN

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 1,05 O/S 25' South	6"	103.7	20.8	A	97.3	Top Lift of Cut-off Wall "A"
2	St. 105 O/S 25' North O/S 15 Ft. West	6"	102.0	22.8	A	95.8	Middle Lift
3	"	6"	103.3	22.9	A	96.9	Between middle & Top Lift
4	"	6	102.3	22.9	A	96.1	Top Lift

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.0	WALCK BORROW SITE - GRAND ISLAND, NEW YORK

REMARKS St. - Station, O/S - offset

DAILY FIELD SUMMARY

DATE 9-8-98 FILE No. 55252

REPORT No. DS-14 SHEET 1 of 2

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 60°-65°F Partly Sunny

REMARKS

REPORT

- Upon arrival to the site (1000 hr), site appeared to be generally moist (due to rain over weekend).

- GZA observed the following equipment on site: Komatsu 200 Backhoe Caterpillar 215 BLC Backhoe with shield trimmer, Komatsu D37P Bulldozer, John Deere 450 G Bulldozer, Ford 555 Rubber Tire Backhoe, Hamm 2410 SD Padfoot Vibratory Roller.

- GZA observed the following personell on site: 1 SLC Foreman, 4 operators and 3 laborers.

- SLC is continuing to excavate Cut-off Wall "A". SLC is excavating down approximately 4-5 feet and mixing 12-15 inches into underlying clay. SLC is backfilling cut-off wall in approximately 9 to 10 inch loose lifts and compacting to 6 inches with Caterpillar 215 BLC backhoe with shield trimmer.

- GZA is taking moisture/density tests within Cut-off Wall "A" (see attached figure for test results).

- GZA performed hand augers on topsoil within area to determine depth of topsoil at the following locations: St. 464 0/s 25' East - 7 inches; St. 479 0/s 25' East - 6.5 inches; St. 496 0/s 25' East - 8 inches; St. 472 0/s 25' East - 7 inches; St. 460 0/s 25' East - 6.5 inches; St. 140 0/s 25' North - 7 inches.

GZA leaves site 1430

Field Time 4.5
Travel Time 1.0
Office Time 1.5
Total Time 7.0

GZA

Todd D. Zlotnicki
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road, Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 9-8-98
FILE No. 55252.
TECHNICIAN TMS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 41.9 o/s 35' South	6"	102.7	22.9	A	96.4	Bottom lift of Cut-off Wall
2	"	6"	104.4	23.3	A	98.0	Middle lift "
3		6"	102.6	24.1	A	96.5	Top lift "
4	St. 41+04 o/s 35' South o/s 25' West	6"	101.8	24.8	A	95.6	Bottom Lift of Cut-off Wall
5	"	6"	105.1	22.4	A	98.7	Middle Lift "
6	"	6"	102.3	24.2	A	96.0	Top Lift "
7	St. 41+9 o/s 35' South o/s 35' West	6"	106.7	24.9	A	100.2	Bottom Lift of Cut-off Wall
8	"	6"	106.4	22.4	A	99.9	Middle Lift "
9		6"	103.2	23.1	A	96.9	Top Lift "
10							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.7	Walck Pit - Grand Island, N.Y.

REMARKS St. - Station, o/s - off-set

DAILY FIELD SUMMARY

DATE 9-9-98 FILE No. 55252

REPORT No. DS-15 SHEET 1 of 2

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 55° - 65° F Overcast

REMARKS

REPORT

- Upon arrival to the site (1000) the site appeared to be generally dry. SLC has a water truck wetting down haul road and clay within cap area.

- GZA observed the following equipment on site: Komatsu 200 Backhoe, Caterpillar 215 B/C Backhoe with plate tamper, Kawasaki 70ZIV Bulldozer, John Deere 550 G Bulldozer, Ford 555 Rubber tire backhoe, Hamm 2410 SD Padfoot Vibratory Roller, Terex 210 Dump truck, and a water truck.

- GZA observed the following personell on site: 1 SLC foreman, 4 operators, and 4 Laborers.

- SLC is continuing to excavate Cut-off Wall "A". SLC is excavating down approximately 4-5 feet and leaving 12-15 inches into underlying clay. SLC is backfilling cut-off wall in approximately 8-10 inch loose lifts and compacting to 6 inches with Caterpillar 215 B/C backhoe with plate tamper.

- SLC is installing topsoil within Cap area. Topsoil is being installed in approximately 6 single 6-7 inch loose lifts.

- GZA is performing moisture/density tests with cut-off Wall (see attached figure for test results.

- GZA collected Shelby Tube samples CW-A-3 from the NE of Cut-off Wall "A" from St. 444 N/A 35-40' South.

GZA leaves site 1540

Field Time 4.0
Travel Time 1.0
Office Time .5
Total Time 5.5

GZA

Todd D. Schara
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 9-9-98
FILE No. 552.52.
TECHNICIAN T.D.S

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 1+54 o/s 35' South o/s 25' West	6"	103.5	22.6	A	97.1	Bottom Lift of Cut-off Wall
2	"	6"	103.7	22.7	A	97.3	Middle Lift of "
3	"	6"	102.9	25.1	A	96.6	Top Lift of "
4	St. 4+44 o/s 35' South	6"	104.1	22.3	A	97.7	Bottom Lift of Cut-off Wall
5	"	6"	102.6	23.4	A	96.3	Middle Lift "
6	"	6"	102.8	22.9	A	96.5	Top Lift "

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.7	Walck Pit - Grand Island, N.Y.

REMARKS St. - Station, o/s - offset

DAILY FIELD SUMMARY

DATE 9-16-98 FILE No. 55252

REPORT No. DS-11a SHEET 1 of 1

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructions, Inc.

WEATHER CONDITIONS 60° - 70°F Partly Sunny

REMARKS

REPORT

- Upon arrival to the site (0800), the site appeared to be generally moist / due to overnight rain)

- GZA performed hand Augers on Topsoil within R.O.W. Area in order to determine thickness. Hand Augers were taken at the following locations: St. 456 0/s 25' East - 7.5 inches, St. 1497 0/s 25' East - 7 inches, St. 391 0/s 25' East - 7.5 inches, St. 484 0/s 25' East - 7 inches, St. 454 0/s 25' East - 6.5 inches, St. 459 0/s 25' West - 7 inches, St. 449 0/s 25' East - 7 inches, St. 265 0/s 25' East - 6.5 inches, St. 417 0/s 50' East - 7 inches.

- No other work items done associated with GZA's Scope of Work.

GZA leaves site 1030

Field Time 2.5
Travel Time .5
Office Time
Total Time 3.0

Todd D. Schara
PREPARED BY

DAILY FIELD SUMMARY

DATE 9-19-98 FILE No. 55252

REPORT No. DS-17 SHEET 1 of 1

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 70° - 85° F Sunny

REMARKS

REPORT

- Upon arrival to the site (1300) the site accepted to be partially dry.

- GZA observed Line-grading of sub-grade west of Cap Area along with side of haul road. Also observed the removal of rail-road ties. Rail-road ties are being loaded into tractor trailer to be hauled off-site.

- GZA performed Hand Augers on Trail west of Cap Area to determine the depth. Hand Augers were taken at the following locations: St. 179 0/s 25' East - 5.5 inches. St. 221 0/s 25' East - 4.5 inches. St. 243 0/s 25' East - 6 inches. St. 202 0/s 25' West - 5.5 inches. St. 223 0/s 25' East - 4.5 inches. St. 225 0/s 125' East - 5 inches. St. 320 0/s 25' West - 5.5 inches.

GZA leaves site 1730

Field Time 4.5
Travel Time .5
Office Time
Total Time 5.0

Todd D. Schata
PREPARED BY

DAILY FIELD SUMMARY

DATE 9-20-98 FILE No. 55252

REPORT No. DS-18 SHEET 1 of 1

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 70°-80° F Sunny

REMARKS

REPORT

= Upon arrival to the site (0700), the site appears to be generally dry.

- GZA observes Sino-engineering at sub-grade to the west of Cell #1 and south of haul-road.

- No work being done associated with GZA's scope of work. GZA is on site due to Ski-Hyton & Lan Associates not being on site.

GZA leaves site 1530

Field Time 8.0
Travel Time 1.0
Office Time
Total Time 9.0

GZA

Todd D. Schafer
PREPARED BY

DAILY FIELD SUMMARY

DATE 9-21-98 FILE No. 55252

REPORT No. DS-19 SHEET 1 of 1

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 70°-75°F Sunny

REMARKS

REPORT

Upon arrival to the site (0700) the site appeared to be generally dry.

- GZA observed the following equipment on site: Komatsu 200 Backhoe Komatsu D55P Bulldozer, John Deere 544 G Bulldozer, Ford Rubber Tire backhoe, Terex 714 Dump Truck.

- GZA observed the following personnel on site: 1 SLC Foreman, 4 operators and 2 Laborers.

- SLC is fine grading sub-grade west of CAO area. SLC is removing rock, shrubs and rooted land vegetation.

- No work being done concerning with GZA's scope of work. GZA is only on site due to SKW Union of Los Americas (owner's representative) not being able to be on site!

GZA leaves Site 1300

Field Time 5.5
Travel Time .5
Office Time .5
Total Time 6.5

GZA

Todd D. Schrag
PREPARED BY

DAILY FIELD SUMMARY

DATE 9-24-98 FILE No. 55252

REPORT No. DS-20 SHEET 1 of 1

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 60°-65°F Overcast

REMARKS

REPORT

- Upon arrival to the site (1000), the site appears to be generally dry.

- GZA observed the following equipment on site: Komatsu 200 Backhoe (originally 215 BLC Backhoe with plate thumb), John Deere 550 C Bulldozer, Ford 555 B Backhoe backhoe.

GZA observed the following personnel on site: 1 SLC Superintendent, 1 SLC Foreman, 4 operators, 4 laborers, 2 Surveyors of Kloepke Surveying.

SLC is excavating Cut-off wall "A". GZA did not observe actual excavation of Cut-off Wall. Jackie Lipton of Lan Associates (owners representative) had indicated that SLC excavated down approximately 5-6 feet using 12-K inches finer underlining Wall. Cut-off wall was backfilled in approximately 2 to 3 inch lifts being compacted to 17-8 inches with Caterpillar 215 BLC 'Backhoe' with plate thumb.

- GZA collected shelby tube samples for laboratory analysis at the following locations and depths: CW-A-4 (bottom lift) depth 6"-1'2" from St. 302 o/s 20' South, CW-A-5 (middle lift) depth 1'6"-2'8" from St. 302 o/s 20' South, CW-A-6 (bottom lift) depth 3'1"-4'5" from St. 302 o/s 20' South.

GZA leaves site 1300

Field Time 3.0
Travel Time .5
Office Time
Total Time 3.5

GZA

Todd D. Schrag
PREPARED BY

DAILY FIELD SUMMARY

DATE 10-7-98 FILE No. 55252

REPORT No. DS-21 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 55° - 65° F Overcast

REMARKS

REPORT

- Upon arrival to the site (0900) the site appeared generally dry.

- GZA observed the following equipment on site: Komatsu 300 Backhoe Caterpillar 215 C Backhoe with thumb Long Reach Excavator, 1 Bulldozer, Komatsu D 57 P Bulldozer, Front end Pettibone backhoe, Hamm 2410 Pad & Vibratory Roller, and a Water Truck.

- GZA observed the following personnel on site: 1 SLC Superintendent, 1 SLC Foreman, 4 operators, 3 Laborers and 2 Surveyors at Klett's Surveying.

- SLC is importing clay to install within the area. Clay is being tied into previously installed clay (see attached Sketch for approximate limits). Clay is being installed in approximately 8 inch lifts and is being compacted to / to indeed with the Hamm 2410 vibratory padfoot roller. Roller with 4 passes on clay

GZA is obtaining moisture / density tests at various locations within CQC area (see attached Sketch for approximate locations).

GZA leaves site 1600

Field Time 7.5
Travel Time 1.0
Office Time
Total Time 8.5

GZA

Todd D. Schatz
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 10-7-98
FILE No. 552.52
TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 484 @ 5' North	6"	104.8	23.0	A	98.3	
2	St. 470 @ 5' North	6"	102.8	23.5	A	96.5	
3	St. 455 @ 5' North	6"	106.5	22.7	A	99.8	
4	St. 434 @ 5' North	6"	105.9	23.8	A	99.4	
5	St. 390 @ 5' North	6"	108.2	22.9	A	101.5	
6		6"			A		
7		6"			A		
8		6"			A		
9		6"			A		
10		6"			A		
11		6"			A		
12		6"			A		

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.1	Walck Pit - Grand Island, N.Y.

REMARKS

PROPERTY LINE – AREA "E"

10-7-98

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate Locations of Moisture/Density Tests
1/2 - top # indicates test number
1/2 - bottom # indicates lift number

Approximate limits of Clay Installation

GATE

Y LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269
Job No. 2.326

DAILY FIELD SUMMARY

DATE 10-10-98 (SATURDAY) FILE No. 55252

REPORT No. DS-22 SHEET 1 of 2

PROJECT CUT-OFF WALL & CAP CONST. LOCATION WITMER ROAD, NIAGARA, N.Y.

OWNER SKW METALS & ALLOYS, INC. CONTRACTOR SLC CONSTRUCTORS, INC.

WEATHER CONDITIONS 55° ~ 65° F CLOUDY

REMARKS

REPORT

- UPON ARRIVAL TO SITE (0700) THE SITE APPEARED TO BE MOIST (RAINS DURING THE PAST WEEK).

- GZA OBSERVED THE FOLLOWING EQUIPMENT ON SITE (IN USE): KOMATSU 200 EXCAVATOR, CATERPILLAR 215BLC EXCAVATOR W/ PLATE HAMMER, JOHN DEERE 550 H BULLDOZER.

- GZA OBSERVED THE FOLLOWING PERSONNEL ON SITE: 1 SLC CORE FOREMAN, 2 OPERATORS, 1 LABORER.

- SLC IS EXCAVATING CUTOFF WALL "A". THE TRENCH IS 2 FEET WIDE AND EXTENDS TO A DEPTH OF APPROXIMATELY 6 FEET (WITHIN BROWN CLAY). SLC IS BACKFILLING THE EXCAVATION IN APPROXIMATE 2 INCH THICK LIFTS AND COMPACTING TO 9 INCHES WITH THE PLATE HAMMER. SLC IS WORKING IN 6 TO 8 FOOT LONG SECTIONS. WATER IS SOMETIMES ENCOUNTERED FLOWING IN TO THE TRENCH FROM THE EXCAVATION WALL (LANDFILL SIDE). CLAY IS USED TO BACKFILL THE TRENCH AND CUTOFF THE WATER FLOW. LARGE TENSION CRACKS WERE OBSERVED AT THE TOP OF THE TRENCH (INDICATOR OF SIDE WALL COLLAPSE).

- IN TO INCREASE TRENCH EXCAVATIONS IN PLACE MOISTURE/DENSITY TEST WERE NOT TAKEN BELOW A DEPTH OF 2.5 FEET BELOW EXISTING GRADE. SEE ATTACHED SHEETS FOR TEST LOCATION AND RESULTS.

(A)

- THE TRENCH EXCAVATION STARTED AT A LOCATION APPROXIMATELY IN LINE WITH CELL F-4/5 AND PROCEEDED IN A NORTHLY DIRECTION.

- WHEN EXCAVATING THE THIRD SECTION OF TRENCH THE SIDEWALL (LANDFILL SIDE) SEEMS TO COLLAPSE INTO THE EXCAVATION. IN ADDITION WATER FLOWED INTO THE TRENCH. THE COLLAPSED SIDEWALL AND WATER FLOW PREVENTED ANY DENSITY COMPACTIVE EFFORT FROM BEING APPLIED. THIS PORTION OF THE EXCAVATION WAS BACKFILLED W/O COMPACTION. THE AREA WILL NEED TO BE RELOCATED.

Field Time 7.0
Travel Time 1.0
Office Time —
Total Time 8.0

- APPROXIMATELY 20 L.F. OF CUTOFF WALL WAS COMPLETED THIS DATE.

(A) GZA COLLECTED SHELBY TUBES CW-A-7, 8, +9 FROM THE SECOND SECTION OF CUTOFF WALL COMPLETED THIS DATE.

1430 GZA LEAVE SITE.

TOM SEIER
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW Metals & Alloys, Inc.

PROJECT Cut-Off Wall & Cap Construction

LOCATION Wittmer Road; Town of Niagara, New York

CONTRACTOR S.L.C. Constructors, Inc.

DATE 10-10-98 (SAT.)

FILE No. 55257.

TECHNICIAN TRS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	CUTOFF WALL "A", 10" BELOW GRADE (FIRST SECTION)	8"	100.3	24.8	A	94.1	SEE TEST #2
2	RETEST #1	8"	101.2	24.2	"	95.0	RECOMPACT
3	CUTOFF WALL "A", 6" BELOW GRADE (FIRST SECTION)	8"	103.8	23.2	"	97.4	
4	CUTOFF WALL "A" 24" BELOW GRADE (SECOND SECTION)	8"	100.8	25.4	"	94.6	SEE TEST #5
* 5	RETEST #4	8"	103.3	23.0	"	97.0	CW-A-8 (2'-3') RECOMPACT
6	CUTOFF WALL "A" 12" BELOW GRADE (SECOND SECTION)	8"	102.5	24.0		96.2	
* 7	CUTOFF WALL "A" AT GRADE (SECOND SECTION)	8"	104.9	24.5		98.5	CW-A-9 (0'-1')

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A.	105.5	7.7.	Walck Pit - Grand Island, N.Y.

GZA

REMARKS * COLLECTED CW-A-8 ADJACENT TO TEST # 5, COLLECTED CW-A-9 ADJACENT TO TEST #7, CW-A-7 WAS COLLECTED AT A DEPTH OF 4'TO 5'.

PROPERTY LINE – AREA "E"

10-10-98

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

DISTURB AREA

GATE

LINE – AREA "E"

LOCATION OF SHELBY TUBES CW-A-7-8+9.

LIMITS OF CUTOFF WALL "A" COMPLETED THIS DATE. (30 L.F.)

10-10-98 SATURDAY TS

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 32691

Job No. 2.326

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 10-12-98
FILE No. 552.57.
TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 412 o/s 70' South o/s 20' West	8"	105.9	22.6	A	99.3	Top Lift"
2	St. 412 o/s 70' South o/s 25' West	8"	103.5	22.4	A	97.2	Top Lift
3	St. 390 o/s 70' South	8"	101.5	24.1	A	95.3	Middle Lift
4	"	8"	103.7	23.1	A	97.4	Top Lift
5	St. 390 o/s 15' East	16"	93.6	29.0	A	87.9	To be retested at a later date
6	St. 412 o/s 15' East	6"	92.6	28.1	A	87.0	"
7	St. 434 o/s 15' East	6"	92.5	26.9	A	86.9	"
8	St. 491 o/s 10' East	6"	102.7	24.1	A	96.4	
9	St. 477 o/s 5' East	6"	104.1	23.4	A	97.7	
10	St. 475 o/s 5' East	6"	101.8	25.2	A	95.6	
11	St. 459 o/s 5' East	16"	102.4	24.0	A	96.1	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A.	106.5	22.	Walck Pit - Grand Island, N.Y.

GZA

REMARKS

6-12-98

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate Locations of Moisture/Density tests

1/ - top number indicates test #

1/2 - bottom number indicates test #

Approximate limits of lift #2 Installed

Approximate limits of Previously Installed Clay

GATE

Shelby Tubes

CW-A-13 (4.5-6') - bottom

CW-A-14 (3.5-4.5') - Top

CW-A-15 (3-4') - Middle

Area in Question

CW-A-10 (5' depth) - bottom 1/2

CW-A-11 (3' depth) - Middle 1/2

CW-A-12 (2' depth) - Top 1/2

Approximate location of Shelby Tubes taken

Approximate Locations of moisture/density tests #1 and 2 taken

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Drg. File No. 32691

Job No. 2.326

DAILY FIELD SUMMARY

DATE 10-13-98 FILE No. 55252

REPORT No. DS-24 SHEET 1 of 4

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 55-65° F Partly Sunny

REMARKS

REPORT

Upon arrival to the site (0730) the site appeared to be generally dry.

- GZA observed the following equipment on site: Komatsu 220 Backhoe Caterpillar 215 BLC Backhoe with clam bucket, John Deere 550C Bulldozer Komatsu WA97 Bulldozer Ford 555 Rubber Tire Backhoe Hamm 2410KS Padfoot Vibratory Roller, John Deere 650 C Bulldozer, and a water truck.

- GZA observed the following personnel on site: 1 SLC foreman, 4 Operators, and 3 laborers.

- SLC is continuing to excavate Cut-off Wall "A". SLC is excavating a 2 foot wide Key-hole to the depth of approximately 4.5 feet (as intended by SKW Metals & Alloys) bottom fill is then compacted with Caterpillar 215 BLC Backhoe with clam bucket. SLC is backfilling cut-off wall in approximately 10-12 inch loose lifts and compacting to 8-9 inches. Cut-off Wall "A" is complete (see below).

- SLC is continuing to import clay and installing 8 inch loose lifts within cap area and tying into previously installed clay. Clay is being compacted to 6 inches with Hamm 2410KS Padfoot vibratory roller and is making at least 4 passes to obtain acceptable density (see attached figure for approximate limits).

- GZA is performing moisture/density tests within cap area at various locations (see attached figure for approximate limits). GZA took the following thicknesses from the following locations and depths for laboratory analysis: CW-A-16 -St. 4+10 to 25' East - 3.5-4', CW-A-17 - St. 4+10 & 25' East - 1-2', CW-A-18 - St. 4+10 & 35' East - 4.5-5.5'.

- An area within Cut-off Wall shown on attached figure that was in question from 10-10-98 (see Daily Field Summary DS-23) has been completed. SLC compacted area with Caterpillar 215 BLC with clam bucket then installed approximately 4-5 lifts of clay and compacted each. SLC then excavated a 2 foot wide keyway to a depth of 6-7 feet and continuing in same procedure as previous Cut-off Wall completion. SKW Metals & Alloys Inspector stated that this was acceptable.

GZA leaves site 1730

Field Time 10.0
Travel Time 1.0
Office Time
Total Time 11.0

Todd D. Schaefer
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD, TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTORS, INC.

DATE 10-13-98

FILE No. 552.57

TECHNICIAN TAS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 368 0/s 5' North	6"	107.0	22.5	A	100.5	
2	St. 412 0/s 5' North	6"	101.5	23.6	A	95.3	
3	St. 415 0/s 5' North	6"	102.3	23.3	A	96.0	
4	St. 463 0/s 5' North	6"	103.4	23.4	A	97.1	
5	St. 177 0/s 5' South	6"	101.3	24.5	A	95.1	
6	St. 476 0/s 5' South	6"	101.6	25.0	A	95.4	
7	St. 321 0/s 5' North	6"	103.7	23.1	A	97.4	
8	St. 190 0/s 5' South	6"	105.1	22.6	A	98.7	
9	St. 491 0/s 5' North	6"	104.7	23.0	A	98.3	
10	St. 303 0/s 25' East	6"	105.3	24.6	A	98.9	
11	St. 346 0/s 25' East	6"	103.0	22.8	A	96.7	
12	St. 390 0/s 25' East	6"	101.3	22.6	A	95.1	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.7	WALCK PIT - GRAND ISLAND, N.Y.

REMARKS Test pit excavated at St. 368 0/s 6' West - it was indicated by SKW Hutton of Lea Associates that the layer bonding was acceptable, test pit also excavated at St. 1121 0/s 6' West layer bonding again approved (thickness at this location 10 inches at St. 368 17 inches), and at St. 177 0/s 6' East the bonding was also approved (thickness 13 inches).

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 10-13-98
FILE No. 55257.
TECHNICIAN TMS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
13	St. 434 0/s 25' East	6"	103.9	23.1	A	97.5	"
14	St. 455 0/s 25' East	6"	101.2	22.7	A	97.8	
15	St. 432 0/s 6' North 0/s 5' East	6"	102.2	24.3	A	96.0	Cut-off Wall "A" Middle Lift
16							
17							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	105.5	7.7	Walck Pit - Grand Island, N.Y.

GZA

REMARKS

10-13-98

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate locations of Moisture/Density Tests
1/2 - top # indicates test number
bottom # indicates lift number

Approximate limits of Clay Installation 10-13-98

GATE

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

Approximate location of Cut-off Wall "A" area in Question

AREA "D" – 1" CRUSHED STONE USED AS FILL

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269
Job No. 2.326

DAILY FIELD SUMMARY

DATE 10-14-98 FILE No. 55252

REPORT No. DS-25 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 50-55° F Overcast - Rain

REMARKS

REPORT

- Upon arrival to the site (0800) the site appears to be wet due to overnight rain.

- GZA observed the following equipment on site: Komatsu 200 Backhoe, John Deere 550 G Bulldozer, Komatsu D58 P Bulldozer, John Deere 850 C Bulldozer.

- GZA observed the following personnel on site: 4 Operators, and 3 Laborers

- SLC is excavation area of cut-off Wall "A". material is being drilled or taken out in order to bring area to sub-grade elevation. SLC is transporting unsuitable clay (too wet) to haul road running along south side of site and placing on road in order to bring road to final elevation.

- GZA is performing moisture/density tests at various areas within the area on clay that had been installed on previous days (10-12-98) see attached sheets for approximate limits.

GZA leaves site 1000

Field Time 2.0
Travel Time 1.0
Office Time
Total Time

GZA

Todd D. Schara
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTIONS, INC.

DATE 10-14-98

FILE No. 552.57.

TECHNICIAN TAS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 477 o/s 5' North	6"	103.7	23.1	A	97.5	
2	St. 491 o/s 5' North	6"	101.8	22.7	A	95.6	
3	St. 476 o/s 5' West	6"	103.6	22.8	A	97.2	
4	St. 490 o/s 5' West	6"	105.7	24.4	A	99.2	
5	St. 482 o/s 25' East	6"	102.8	23.3	A	96.4	
6	St. 468 o/s 25' East	6"	101.5	25.3	A	95.3	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	21.	WALCK PIT - GRAND ISLAND, N.Y.

GZA

REMARKS

10-14-98

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ – Approximate limits of Moisture/Density Test Locations
1/2 – top = Indicates test number
1/2 – bottom = Indicates lift number

Approximate limits of Clay Installation from 10-13-98

AREA "D" – 1" CRUSHED STONE USED AS FILL

GATE

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 32691

Job No. 2.326

DAILY FIELD SUMMARY

DATE 10-15-98 FILE No. 55252

REPORT No. DS-26 SHEET 1 of 5

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 40°-50°F Overcast

REMARKS

REPORT

- Upon arrival to the site (1000) the site appeared to be generally moist due to rain from day before.

- GZA observed the following equipment on site: Komatsu 200 Backhoe Komatsu D55A Bulldozer, John Deere 550 Bulldozer, Hanna 3410 SS Pullfoot Vibratory Roller, John Deere 550C Bulldozer, and a Water Truck.

- GZA observed the following personnel on site: 1 SLC Superintendent, 1 SLC Foreman, 4 Operators, and 4 Laborers.

- SLC is excavating the site in between previously installed Unit #2 and Unit #3 installed on 10-13-98. This area is then being backfilled, driven and recompacted. SKW Hydrogeologist had indicated that SLC had not excavated deep into previously placed clay (see attached figure for approximate limits). SLC is continuing to install clay within 120 foot (see attached figure for approximate limits) clay is being installed in 8-9 inch lifts and being compacted to approximately 6 inches with Hanna Pullfoot Vibratory Roller which is making at least 4 passes on clay.

- GZA is performing moisture/density tests within each new lift during placing operations (see attached figure for approximate locations).

GZA leaves site 1700

Field Time 6.5
Travel Time 1.0
Office Time
Total Time 7.5

Todd D. Schatz
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR S.L.C. Constructors, Inc.

DATE 10-15-98
FILE No. 55252.
TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 482 @ 5' North	6"	101.3	23.1	A	95.1	
2	St. 468 @ 5' North	6"	102.1	21.4	A	95.8	
3							
4							

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	7.7	Walck Pit - Grand Island, N.Y.

REMARKS

DAILY FIELD SUMMARY

DATE 10-12-95 FILE No. 55252

REPORT No. DS-23 SHEET 1 of 3

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 60-65° F Sunny

REMARKS

REPORT

Upon arrival to the site I met the site geologist to go over the work that was done from previous week.

- GZA observed the following equipment on site: Komatsu 200 Backhoe, Caterpillar 215 SLC Backhoe with clam bucket, John Deere 550 C Bulldozer, Komatsu D65 P Bulldozer, Ford 555 Rubber Tire Backhoe, Hamm 2410 SA Pedestal Vibratory Roller.

- GZA observed the following personnel on site: 1 SLC foreman, 4 Operators, 2 Laborers and 2 Surveyors from Kiethe Surveying.

- SLC is continuing to excavate Cut-off Wall "A" beginning at approximately Sta. 410 o/s 10' West. It was instructed by Skip Hutton at last Agencies that SLC excavate a 2 foot wide key-hole to a depth of approximately 4.5 foot cement bottom lift with Caterpillar 215 SLC Backhoe with plate thinner than installed a 12-14 inch lower lift of Clay cement to 9-10 inches and continue to final grade, approximately 60-175 feet of cut-off wall completed today.

- SLC is continuing to inspect clay to install and to the previously installed clay within cap area. Clay is being installed in approximately 8-9 inch lifts and is being compacted with Hamm 2410 SA Pedestal Vibratory Pile- to 1/2 inches Roller is making at least 4 passes on clay. Inspected clay was visually inspected by Skip Hutton of the Agencies (Army Engineers / Town Engineer) and appeared to be (subjective) 2% allowable moisture content. Moisture/density tests taken by GZA indicated that clay did exceed 2% moisture (see attached figure for test results). Area in which clay had been installed is begin scarified so that area will be re-compacted and moisture/density tests will be taken at a later date to determine if it is acceptable.

- GZA took the following Shelby Tubes at the following locations and depths for laboratory analysis: CW-A-10-5'-6', CW-A-11-3'-4' CW-A-12-.5'-1.5' - All three tubes taken from Sta. 410 o/s 20' West. CW-A-13-At. R/L o/s 15' West - 4.5-6.0' CW-A-14 At R/L o/s 20' West - .5-1.5', CW-A-15-At. R/L o/s 25' West - 2'-4'.

GZA leaves site 1715

Field Time 8.5
Travel Time 1.0
Office Time
Total Time 9.5

Todd D. Schatz
PREPARED BY

10-15-96

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate location of Moisture/Density Tests

1/2 - Top # indicates test number
Bottom # indicates lift number

Approximate Limits & Tie-in

Approximate Limits of Clay Installation

GATE

AREA "D" – 1" CRUSHED STONE USED AS FILL

AREA "E" – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Drg. File No. 3269
Job No. 2.326

DAILY FIELD SUMMARY

DATE 10-16-98 FILE No. 55252

REPORT No. DS-27 SHEET 1 of 4

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructors, Inc.

WEATHER CONDITIONS 50-65° F Sunny

REMARKS

REPORT

- Upon arrival to the site (0800), the site appeared to be generally dry.

- GZA observed the following equipment on site: Komatsu 200 Backhoe, Komatsu 455 B Bulldozer, John Deere 550 G, Hamm 2410 SA Padfoot Vibratory Roller, Ford 555 Rubber Tire Backhoe, Roman Smooth Drum Vibratory Roller, and a Water Truck.

- GZA observed the following personell on site: 1 SLC Superintendent, 1 SLC Foreman, 4 operators, 3 laborers, and 2 surveyors from Klettke Surveying.

- SLC is continuing to install clay within cap area (see attached figure for approximate limits). Clay is being installed in 12-inch loose lifts and being compacted to approximately 9 inches with Hamm 2410 SA Padfoot Vibratory Roller which is making at least 4 passes.

- GZA is performing moisture/density tests within cap area at various locations (see attached figure for approximate locations). GZA collected Shelby Tube sample FC-2-5 from ~St. 454 & 25' East for laboratory analysis.

- GZA's laboratory indicated that Shelby Tube sample CW-B-7 did not achieve the permeability required for specification (1×10^{-6}). GZA then resampled the failing tube from St. 32+0 9/5 50' South and will have it re-analyzed to meet proper specifications. CW-B-7A was taken from a depth of 3.5' feet and pushed to 4.5'. (CW-B-7B (Depth .5-2.0') and CW-B-7C (Depth 2.0-3.5') were also taken and are being held for visual inspection.

GZA leaves site 1630

Field Time 8.0
Travel Time 1.0
Office Time .5
Total Time 9.5

GZA

Todd D. Schara
PREPARED BY

IN-PLACE DENSITY TEST RESULTS

PROJECT SKW Metals & Alloys, Inc. Cut-Off Wall & Cap Construction
LOCATION Witmer Road; Town of Niagara, New York
CONTRACTOR SLC Constructions, Inc.

DATE 10-16-98
FILE No. 55252
TECHNICIAN TAS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 462 °/s 20' West	6"	101.4	22.4	A	95.2	
2	St. 453 °/s 5' North	6"	103.7	23.3	A	97.4	
3	St. 432 °/s 5' North	6"	102.1	24.8	A	95.8	
4	St. 444 °/s 5' East	6"	102.4	24.4	A	96.1	
5	St. 386 °/s 10' North	6"	102.9	24.9	A	96.6	
6	St. 344 °/s 10' North	6"	107.2	22.2	A	100.2	
7	St. 322 °/s 40' South	6"	103.0	23.7	A	96.6	
8	St. 462 °/s 5' North	6"	104.3	23.1	A	97.9	
9	St. 444 °/s 25' East	6"	105.1	22.7	A	98.7	
10	St. 433 °/s 5' North	6"	101.8	23.2	A	95.6	
11	St. 461 °/s 10' North	6"	102.7	23.9	A	96.4	
12	St. 443 °/s 10' North	6"	103.1	22.4	A	96.8	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.	Walck Pit - Grand Island, N.Y.

GZA

REMARKS

IN PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITTMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTORS, INC.

DATE 10-16-98

FILE No. 552,52.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
13	St. 4110 @ 10' North	6"	105.4	22.1	A	99.0	
		6"			A		
		6"			A		

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.	WALCK PIT - GRAND ISLAND, N.Y.

GZA

REMARKS

PROPERTY LINE – AREA "E"

10-16-98

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D". 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate locations of Moisture/Density Tests

1/2 - Top # indicates test number
Bottom # indicates lift number

599.4 599.5 599.6 599.7 599.3 599.2 599.1

15'

605 605

GATE

LINE – AREA "E"

Approximate Limits of Clay Installation

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 32691

Job No. 2.326

DAILY FIELD SUMMARY

DATE 10-17-98 FILE No. 55252

REPORT No. DS-28 SHEET 1 of 4

PROJECT Cut-Off Wall & Cap Const. LOCATION Witmer Road, Niagara, N.Y.

OWNER SKW Metals & Alloys, Inc. CONTRACTOR SLC Constructions, Inc.

WEATHER CONDITIONS 50°-70° F Sunny

REMARKS

REPORT

- Upon arrival to the site (0800), the site appeared to be generally dry.

- GZA observed the following equipment on site: Komatsu D 58 P Bulldozer, John Deere 550 L Bulldozer, Hamm 2410 SH Padfoot Vibratory Roller, Bomag Smooth Drum Vibratory Roller, and a Water Tank.

- GZA observed the following personell on site: 3 Operators and 3 Laborers.

- SLC is continuing to install clay within cap area (see attached figure for approximate limits) clay is being installed in 8-9 inch loose lifts and being compacted to 6 inches with Hamm 2410 SH Padfoot Vibratory Roller which is making at least 4 passes. Clay Installation within Cap Area has been completed.

- GZA is performing moisture/density tests within cap area at various locations (see attached figure for approximate limits

GZA leaves site 1500

Field Time 7.0
Travel Time 1.0
Office Time
Total Time 8.0

GZA

Todd D. Schara
PREPARED BY

IN PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITTMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C CONSTRUCTORS, INC.

DATE 10-17-98

FILE No. 55252.

TECHNICIAN TDS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	St. 462 o/s 5' North	6"	102.6	24.7	A	96.3	"
2	St. 444 o/s 5' North	6"	101.8	23.9	A	95.6	
3	St. 411 o/s 20' East	6"	104.4	23.4	A	98.0	
4	St. 388 o/s 10' North	6"	99.7	24.1	A	93.6	See Test # 10
5	St. 344 o/s 10' North	6"	102.3	23.2	A	96.0	
6	St. 302 o/s 40' South	6"	102.7	24.6	A	96.4	
7	St. 317 o/s 10' North	6"	103.1	25.7	A	96.8	
8	St. 389 o/s 15' North	6"	102.0	25.2	A	95.8	
9	St. 322 o/s 25' East	6"	105.4	23.1	A	98.9	
10	Retest # 4	6"	102.8	22.8	A	96.5	Recompacted
11	St. 461 o/s 15' North	6"	105.1	22.6	A	98.6	
12	St. 443 o/s 15' North	6"	104.6	23.2	A	98.2	

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.	WALCH PIT - GRAND ISLAND, N.Y.

GZA

REMARKS

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITTMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTIONS, INC.

DATE 10-17-98

FILE No. 55252.

TECHNICIAN T.D.S

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
13	St. 410 °/s 15' North	6"	101.6	23.7	A	95.4	
14	St. 345 °/s 5' North	6"	101.3	25.6	A	95.1	
15	St. 302 °/s 25' East	6"	101.6	22.7	A	95.4	
16	St. 344 °/s 25' East	6"	102.4	23.9	A	96.2	
17	St. 322 °/s 40' South °/s 25' East	6"	101.4	22.5	A	95.2	
18	St. 367 °/s 10' North	6"	103.5	23.0	A	97.2	
19	St. 323 °/s 5' North	6"	103.4	22.8	A	97.1	
20		6"			A		
21		6"			A		
22		6"			A		
23		6"			A		
24		6"			A		

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.	WALCK PIT - GRAND ISLAND, N.Y.

GZA

REMARKS

PROPERTY LINE – AREA "E"

10-17-98

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

○ - Approximate locations of Moisture/Density Tests
1/2 - Top = indicates test number
1/2 - bottom = indicates lift number

599.4 599.5 599.6 599.7 599.3 599.2 599.1

Approximate limits of Clay Installation

GATE

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 32691

Job No. 2.326

DAILY FIELD SUMMARY

DATE (MONDAY) 10-26-98 FILE No. 55252

REPORT No. DS-29 SHEET 1 of 3

PROJECT CUT-OFF WALL & CAP CONST. LOCATION WITMER ROAD, NIAGARA, N.Y.

OWNER SKW METALS & ALLOYS, INC. CONTRACTOR SLC CONSTRUCTORS, INC.

WEATHER CONDITIONS 65°F PARTLY CLOUDY

REMARKS

REPORT

1230: UPON ARRIVAL TO THE SITE, THE SITE APPEARED TO BE DRY TO MOIST.

- GZA OBSERVED THE FOLLOWING EQUIPMENT ON SITE AND IN USE FOR THE REPAIR OF CUTOFF WALL "A": FORD 555 RUBBER TIRE BACKHOE, CATERPILLAR 215 BACKHOE WITH PLATE TAMPER, AND A KOMATSU 200 EXCAVATOR.

- SLC IS REPAIRING A SECTION OF CUTOFF WALL "A" (AREA OF SHELBY TUBE CW-A-12). THE AREA OF CUTOFF WALL "A" BEING REPAIRED EXTENDS ALONG THE CENTERLINE OF THE CUTOFF WALL FROM 10'± WEST OF ST 411 TO 30'± WEST OF ST. 411.

- SLC USED THE FORD BACKHOE TO REMOVE THE CRUSHED STONE FROM THE CUTOFF WALL CAP. THE KOMATSU EXCAVATOR WAS USED TO REMOVE THE TOP 24 INCHES ± OF CLAY (CUTOFF WALL CAP). A PORTION OF THE CAP WAS REMOVED A WIDTH OF 5' TO VERIFY THE CENTERLINE OF THE CUTOFF WALL. ONCE THE CENTERLINE OF THE CUTOFF WALL WAS ESTABLISHED, THE CAP WAS REMOVED 2'± WIDE ALONG THE REMAINING REPAIR SECTION. AFTER THE TOP OF THE CUTOFF WALL WAS EXPOSED, THE PLATE TAMPER WAS USED TO COMPACT THE CLAY. GZA PERFORMED IN PLACE DENSITY TEST (SEE ATTACHED SHEETS) AND COLLECTED THE FOLLOWING SHELBY TUBES: CW-A-12A AT 20'± WEST ST. 411, CW-A-12B AT 28'± WEST ST 411, AND CW-A-12C AT 12'± WEST ST. 411. ALL SHELBY TUBES WERE COLLECTED FROM THE TOP OF THE CUTOFF WALL TO A DEPTH OF 18 INCHES.

- SLC INSTALLED CLAY ABOVE THE CUTOFF WALL IN APPROXIMATE 6 INCH THICK COMPACTED LIFTS TO REPLACE THE CUTOFF WALL CAP. CLAY WAS USED FROM AN ON-SITE STOCKPILE.

1630: GZA LEAVES SITE

Field Time 4.0
Travel Time 1.0
Office Time 1.0
Total Time 6.0

GZA

TRS

PREPARED BY

IN-PLACE DENSITY TEST RESULTS

SKW METALS & ALLOYS, INC.

PROJECT CUT-OFF WALL & CAP CONSTRUCTION

LOCATION WITMER ROAD; TOWN OF NIAGARA, NEW YORK

CONTRACTOR S.L.C. CONSTRUCTORS, INC.

DATE 10-26-98

FILE No. 55257

TECHNICIAN TRS

TEST NO.	TEST LOCATION DESCRIPTION	DEPTH OR ELEV.	DRY DENSITY (PCF)	WATER CONTENT (%)	PROCTOR CODE	% PROCTOR DENSITY	REMARKS
1	TOP OF CUTOFFWALL C.L. CW-A, 20' % WEST ST. 411	8"	103.9	22.6	A	97.5	COLLECTED AT CW-A-12A
2	TOP OF CUTOFFWALL C.L. CW-A, 28'% WEST ST. 411	8"	101.7	26.5	A	95.5	COLLECTED AT CW-A-12B
3	TOP OF CUTOFF WALL C.L. CW-A, 12' % WEST ST. 411	8"	103.4	23.5	A	97.1	COLLECTED AT CW-A-12C
4	C.L. CW-A 25'% WEST ST. 411	8"	102.2	22.6	A	95.9	12" ± BELOW TOP OF CAP
5	C.L. CW-A 15' % WEST ST. 411	8"	104.0	24.8	A	97.6	FINAL GRADE, TOP OF CAP

PROCTOR CODE	MAXIMUM DRY DENSITY (PCF)	OPTIMUM WATER CONTENT (%)	MATERIAL TYPE AND SOURCE
A	106.5	22.	WALCK PIT - GRAND ISLAND, N.Y.

REMARKS

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

DFS - -
10-26-98

599.3 599.4 599.5 599.6 599.7

15'

600

605

GATE

APPROXIMATE LIMITS OF REPAIR AREA, (CW-A)

– AREA "E"

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 32691

Job No. 2.326

Test Locations

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

DISTURB
EATURE

GATE

TY LINE – AREA "E"

AREA "D" – 1" CRUSHED STONE USED AS FILL AND ROAD BED MATERIAL THIS LOCATION ONLY

E PLAN – DEPTH STAKE LAYOUT

50 100

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.

Dwg. File No. 326

Job No. 2.3

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

Lift # 2 Moisture/ Density Test Locations

STURB
URE

15'

599.3 599.4 599.5 599.6 599.7 599.8 599.1

GATE

LINE – AREA "E"

PLAN – DEPTH STAKE LAYOUT

AREA "D" – 1" CRUSHED STONE USED AS FILL

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269

Job No. 2.326

Lift #3 Moisture/Density Test Locations

PROPERTY LINE – AREA "E"

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

599.4 599.5 599.6 599.7 599.5 599.7 599.1

15'

GATE

E – AREA "E"

AREA "D" – 1" CRUSHED STONE USED AS FILL

PLAN – DEPTH STAKE LAYOUT

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO. NY 57203

Dwg. File No. 3269
Job No. 2.326

Shelby Tube Locations for Cut-off Wall "A + B"

Shelby Tube Locations For Lifts #1, 2, and 3

AREA "C" – BETWEEN PROPERTY LINE AND THIS LINE, ENCOMPASSING THE AREA OF ADDITIONAL SUB-GRADE REMOVAL; REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM AREA "A" SHALL BE PERMITTED IN THIS AREA TO MAKE UP ANY FILL DEFICITS. MINIMUM 1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

AREA "A" – REUSE OF EXCAVATED SUB-GRADE MATERIALS FROM THIS AREA SHALL BE PERMITTED IN ADJACENT AREAS "B", "C", AND "D".1'-0" DEEP SELECT FILL MATERIAL LAYER SHALL BE PLACED IN 6" LIFTS AND COMPACTED TO SPECIFICATIONS. FINAL 1'-0" TOPSOIL SHALL BE PLACED AND COMPACTED TO FINAL SITE CONTOUR ELEVATIONS.

CW- Cutoff Wall, B indicates Cutoff Wall "B", number indicates tube #

FC- Final Cover, 1st number indicates lift #, 2nd number indicates tube #

PROPERTY LINE – AREA "E"

AREA "D" – 1" CRUSHED STONE USED AS FILL

GATE

PLAN – DEPTH STAKE LAYOUT

50 100

SKW METALS & ALLOYS, INC.
NIAGARA FALLS, NEW YORK

GUY D. VAN DOREN, P.E.
LICENSE NO NY 57203

Dwg. File No. 3269

Job No. 2.326

APPENDIX B

PRE-CONSTRUCTION LABORATORY TEST DATA FOR THE WALCK CLAY BORROW SOUCE IN GRAND ISLAND, NEW YORK

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3301 COMPLETED: August 20, 1998

SAMPLE NUMBER: 08078-1
MATERIAL SOURCE: WALCK FARM PIT CLAY- GRAND ISLAND, NEW YORK
SAMPLE TYPE: RECONSTITUTED SAMPLE USING HAND RAMMER AND 5 LIFTS
TEST SERIES NO.: Kr1.1

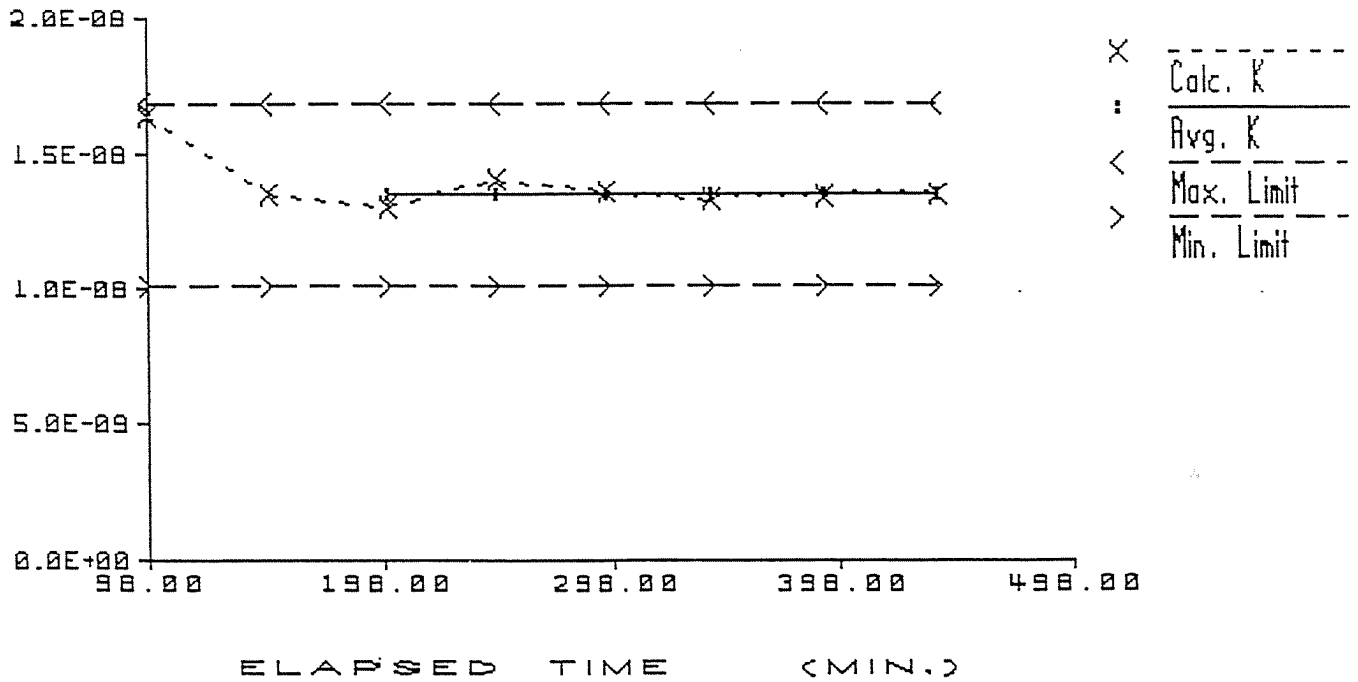
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.827	2.820
LENGTH (in.)	1.978	1.946
WATER CONTENT (%)	23.7	24.0
DRY UNIT WEIGHT (pcf.)	100.6	102.7

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY . vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 04 1998

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3301 COMPLETED: August 20, 1998

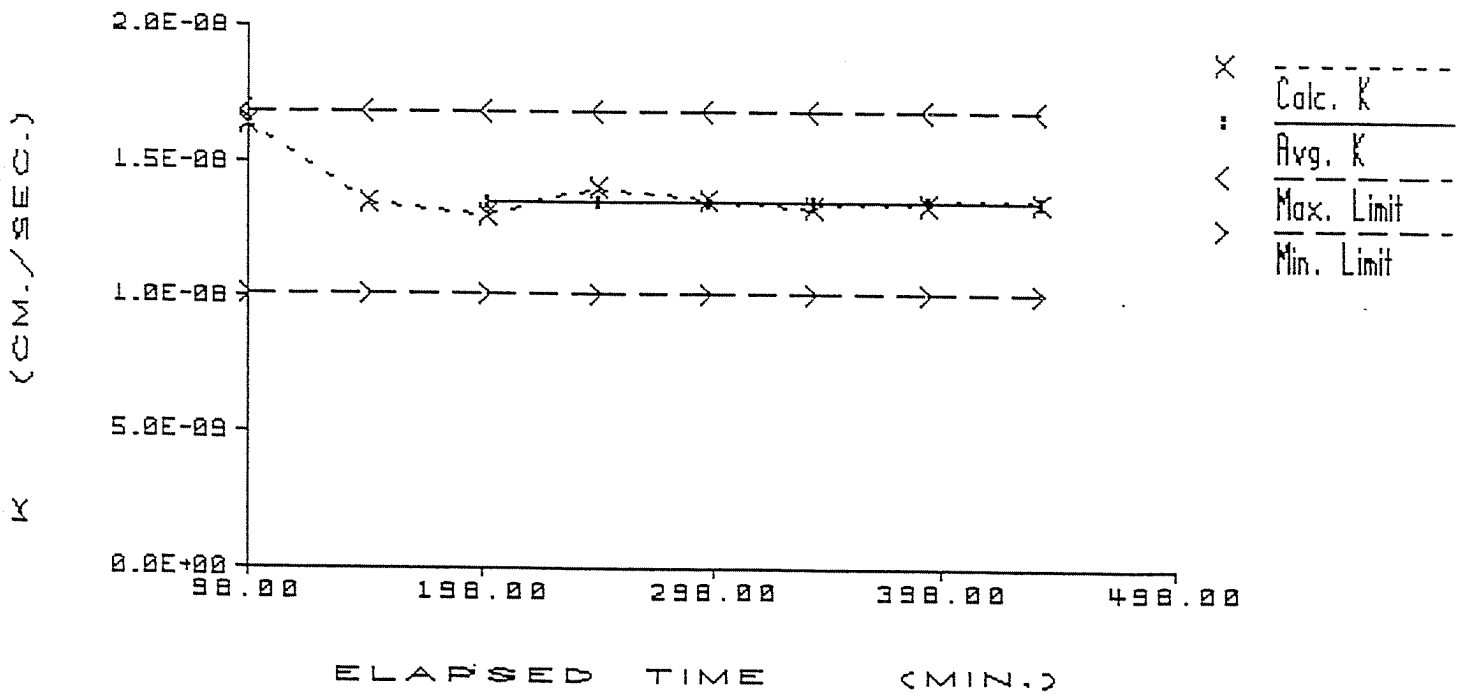
SAMPLE NUMBER: 08078-1
MATERIAL SOURCE: WALCK FARM PIT CLAY- GRAND ISLAND, NEW YORK
SAMPLE TYPE: RECONSTITUTED SAMPLE USING HAND RAMMER AND 5 LIFTS
TEST SERIES NO.: Kr1.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.827	2.820
LENGTH (in.)	1.978	1.946
WATER CONTENT (%)	23.7	24.0
DRY UNIT WEIGHT (pcf.)	100.6	102.7

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 04 1998

APPENDIX C

SHELBY TUBE PERMEABILITY RESULTS

APPENDIX C1

CUT-OFF WALL "A" SHELBY TUBES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3373 COMPLETED: October 2, 1998

SAMPLE NUMBER:	CW-A-1
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K35.1

SAMPLE DATA:

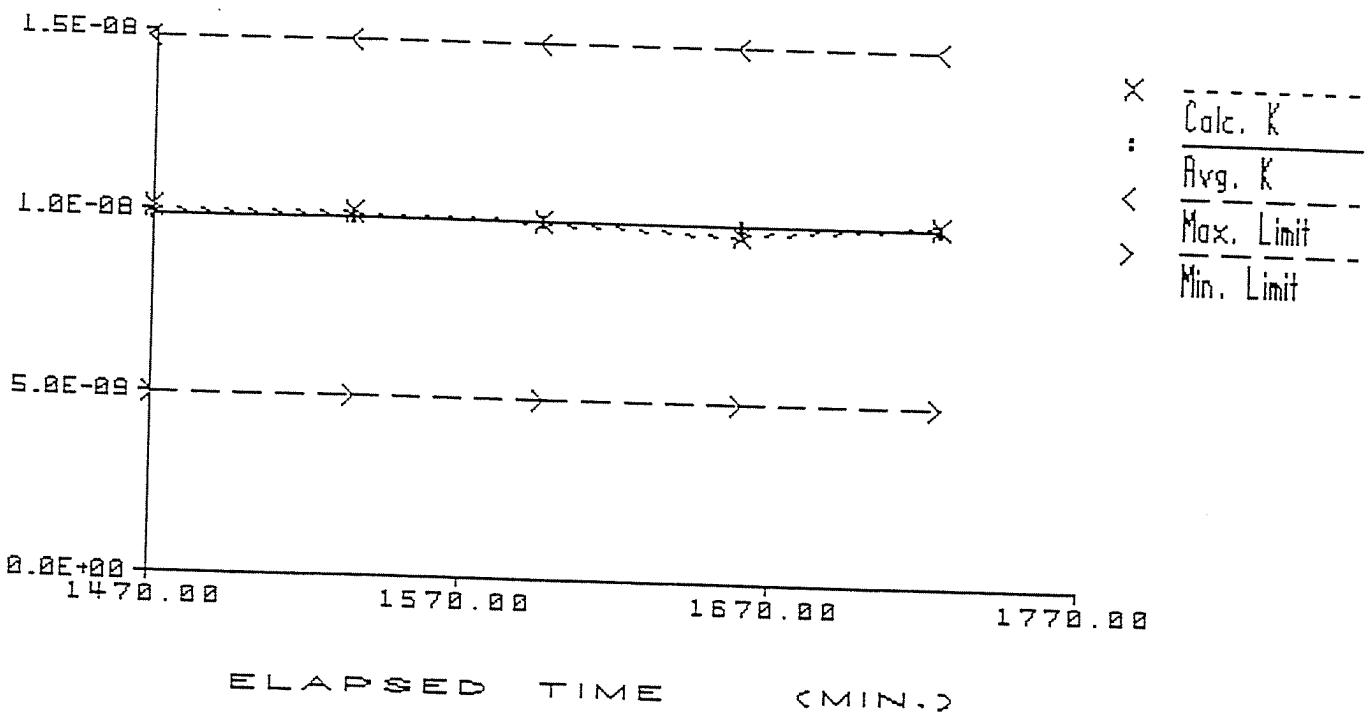
	INITIAL	FINAL
DIAMETER (in.)	2.856	2.853
LENGTH (in.)	2.025	2.034
WATER CONTENT (%)	21.3	22.9
DRY UNIT WEIGHT (pcf.)	105.8	105.6

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 9.9E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3373 COMPLETED: October 6, 1998

SAMPLE NUMBER: CW-A-2
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K36.1

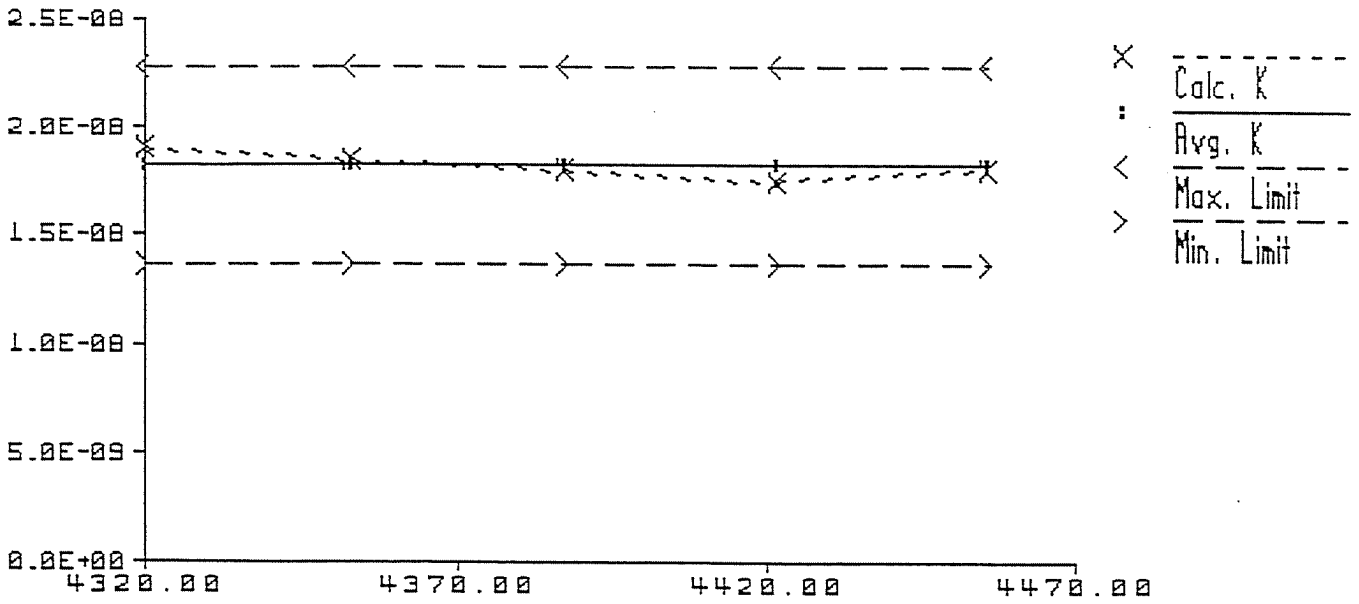
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.850	2.865
LENGTH (in.)	2.000	2.015
WATER CONTENT (%)	22.2	24.2
DRY UNIT WEIGHT (pcf.)	104.9	103.0

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.8E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3382 COMPLETED: October 6, 1998

SAMPLE NUMBER: CW-A-3
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K39.1

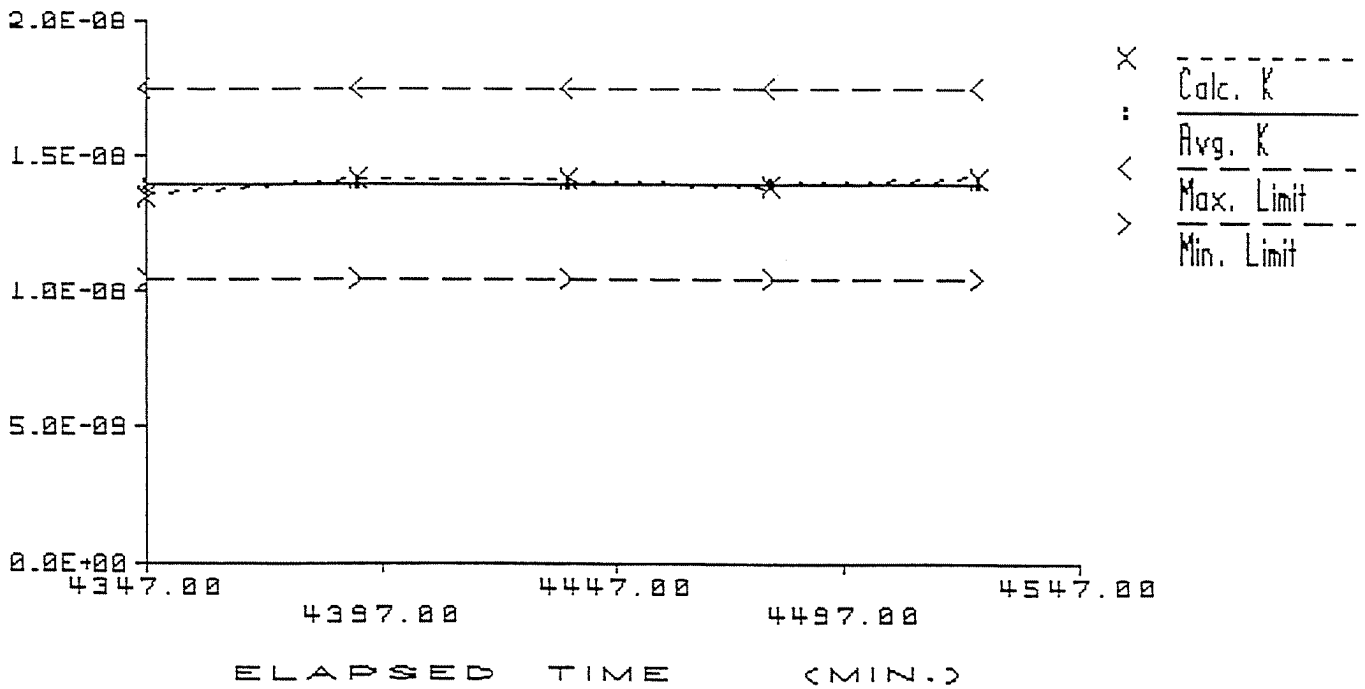
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.848	2.865
LENGTH (in.)	1.902	1.913
WATER CONTENT (%)	21.0	23.1
DRY UNIT WEIGHT (pcf.)	106.9	105.1

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3.2
INITIAL HYDRAULIC GRADIENT	29
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3418 COMPLETED: October 12, 1998

SAMPLE NUMBER:	CW-A-4
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K43.1

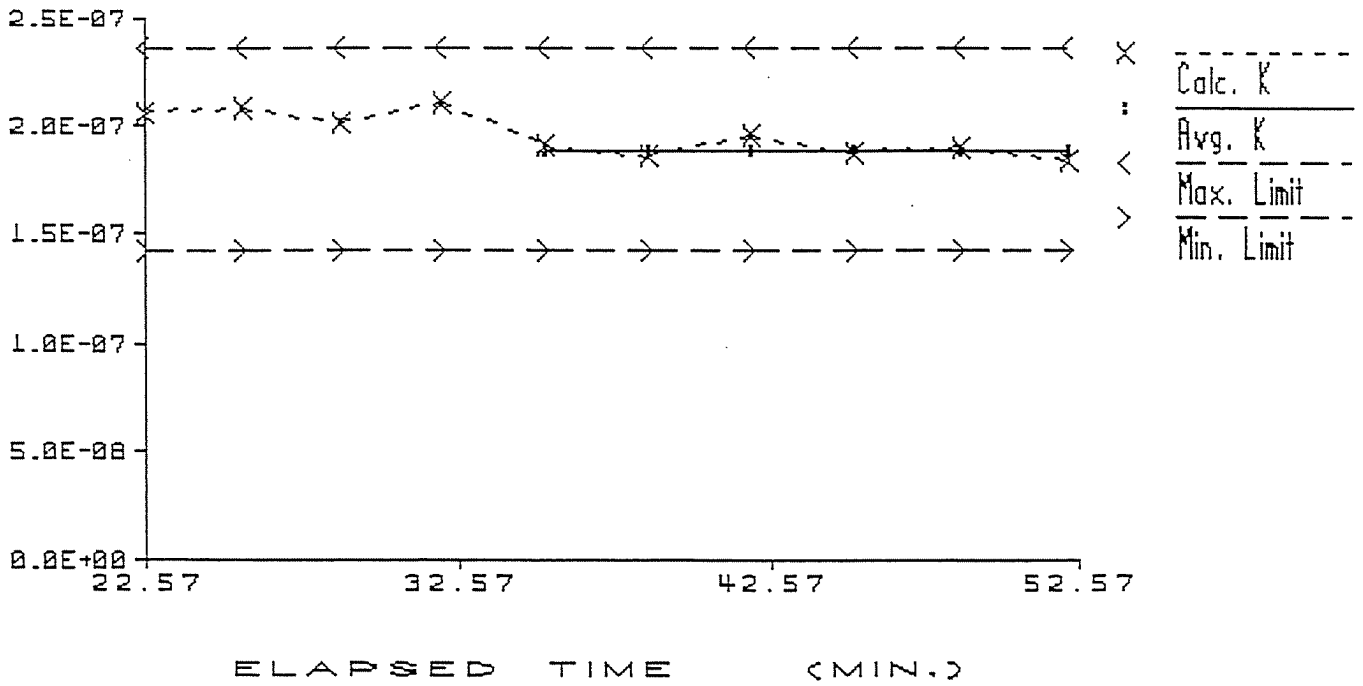
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.853	2.862
LENGTH (in.)	2.008	2.018
WATER CONTENT (%)	21.7	24.5
DRY UNIT WEIGHT (pcf.)	103.6	102.4

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.9E-07

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3418 COMPLETED: October 14, 1998

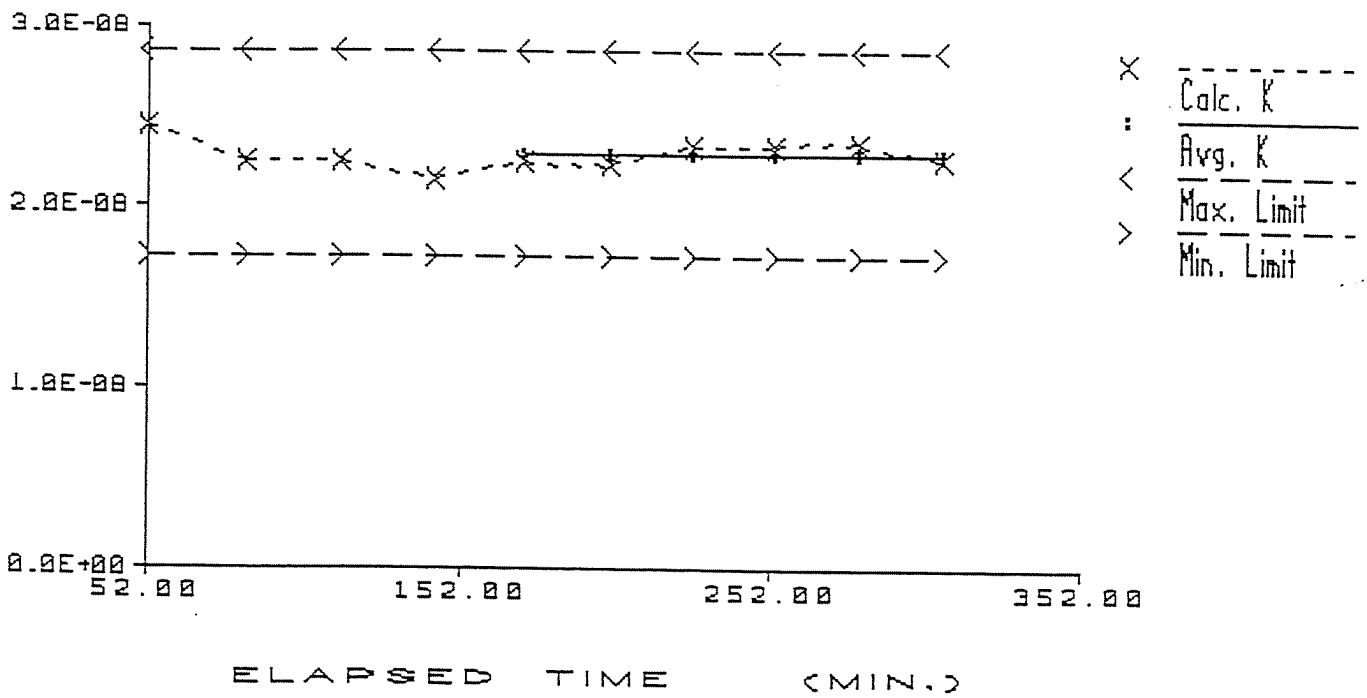
SAMPLE NUMBER: CW-A-5
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K44.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.864	2.882
LENGTH (in.)	1.996	2.017
WATER CONTENT (%)	21.6	24.1
DRY UNIT WEIGHT (pcf.)	106.1	103.7

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.3E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3418 COMPLETED: October 14, 1998

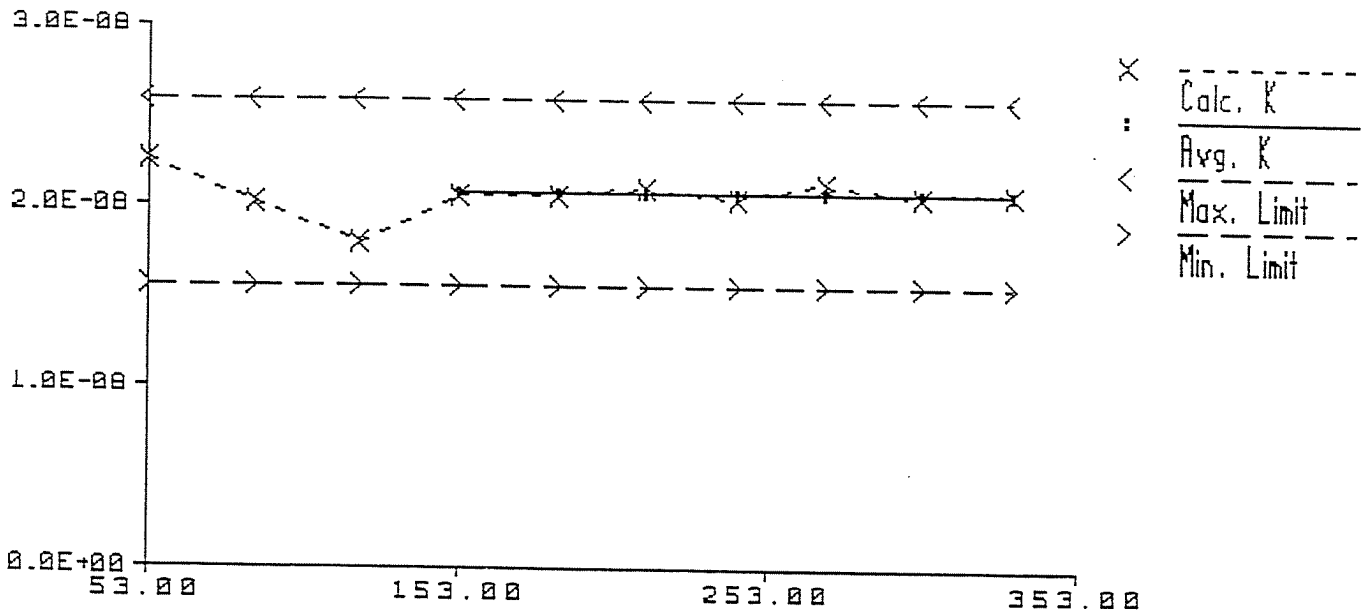
SAMPLE NUMBER: CW-A-6
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K45.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.864	2.863
LENGTH (in.)	2.038	2.026
WATER CONTENT (%)	23.4	24.8
DRY UNIT WEIGHT (pcf.)	101.6	102.3

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.1E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3428 COMPLETED: October 14, 1998

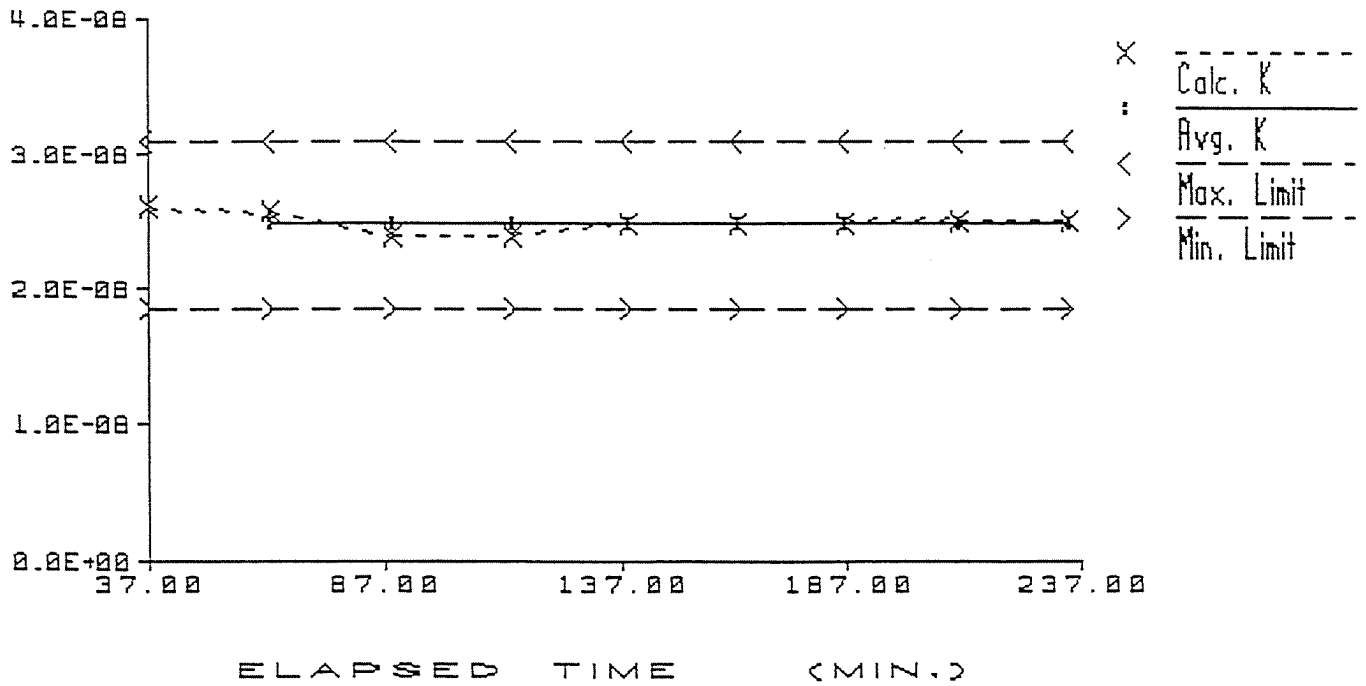
SAMPLE NUMBER:	CW-A-7
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K46.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.869	2.858
LENGTH (in.)	1.995	1.974
WATER CONTENT (%)	25.6	25.9
DRY UNIT WEIGHT (pcf.)	99.6	101.4

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.5E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3428 COMPLETED: October 16, 1998

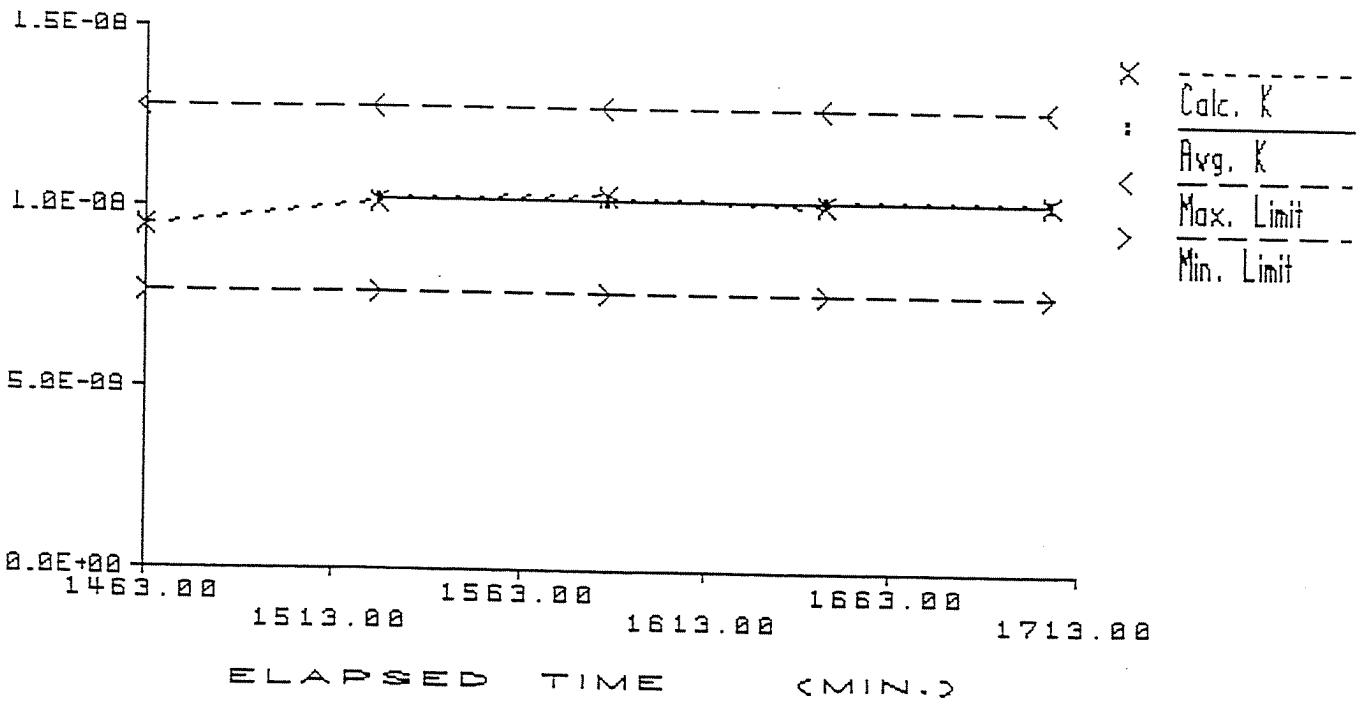
SAMPLE NUMBER: CW-A-8
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K47.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.855	2.859
LENGTH (in.)	1.984	1.988
WATER CONTENT (%)	22.8	24.5
DRY UNIT WEIGHT (pcf.)	103.2	102.7

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.0E-08

PERMEABILTY vs TIME



CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3428 COMPLETED: October 23, 1998

SAMPLE NUMBER: CW-A-9
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K48.1

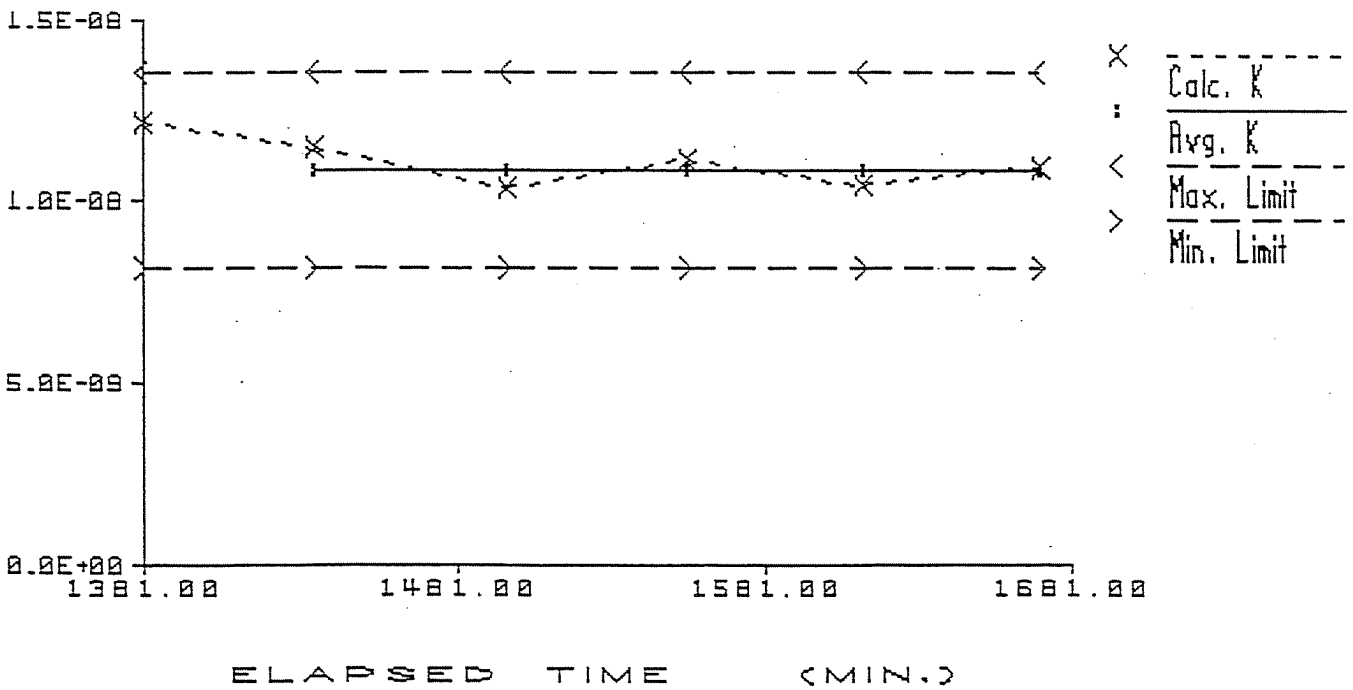
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.854	2.857
LENGTH (in.)	2.018	2.024
WATER CONTENT (%)	23.1	24.1
DRY UNIT WEIGHT (pcf.)	104.4	103.9

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.1E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3428 COMPLETED: October 14, 1998

SAMPLE NUMBER: CW-A-10
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K49.1

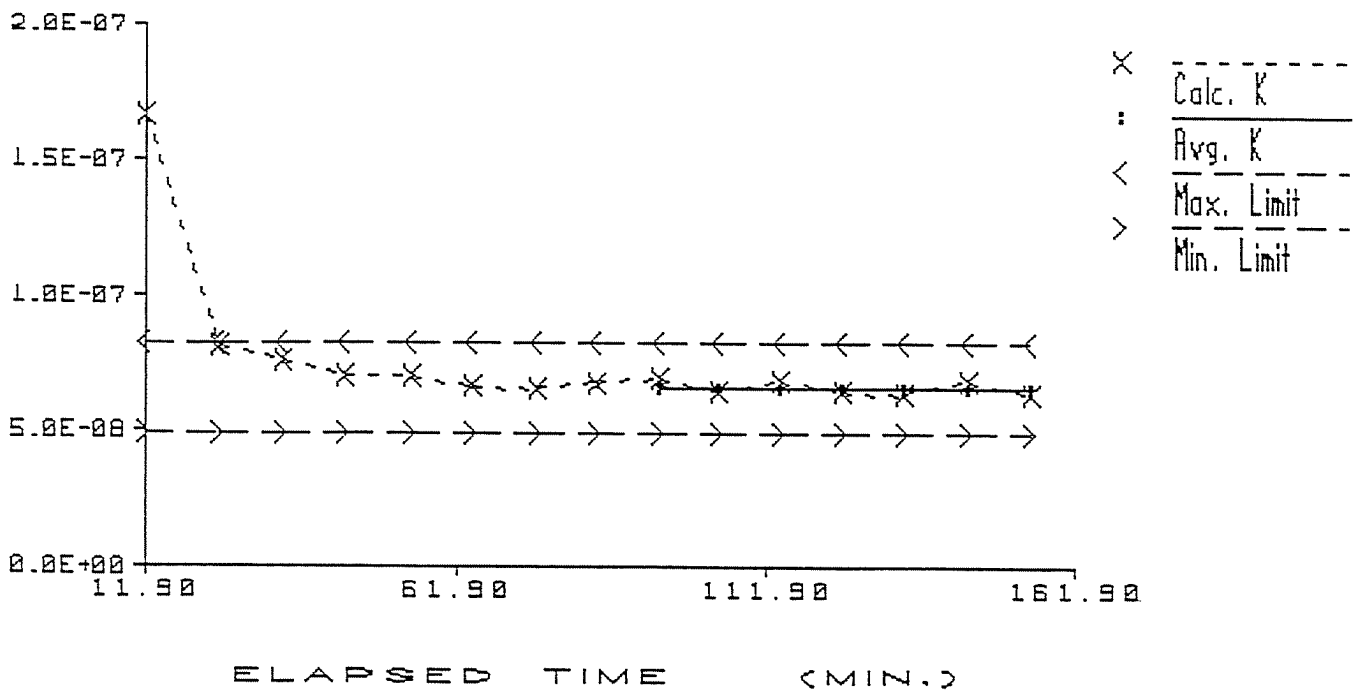
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.857	2.856
LENGTH (in.)	1.973	1.981
WATER CONTENT (%)	20.8	23.7
DRY UNIT WEIGHT (pcf.)	104.2	103.9

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 6.6E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3428 COMPLETED: October 22, 1998

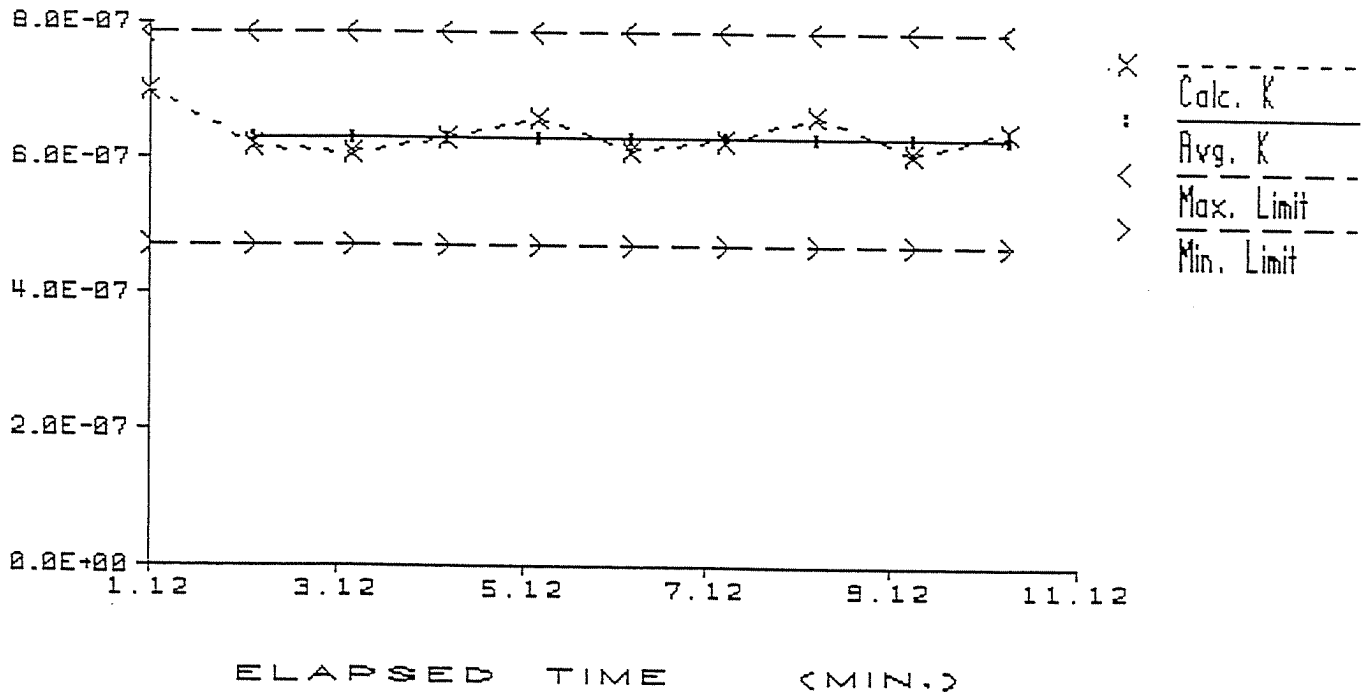
SAMPLE NUMBER: CW-A-11
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K50.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.855	2.849
LENGTH (in.)	1.974	1.974
WATER CONTENT (%)	21.2	24.4
DRY UNIT WEIGHT (pcf.)	101.3	101.8

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 6.3E-07

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3428 COMPLETED: October 22, 1998

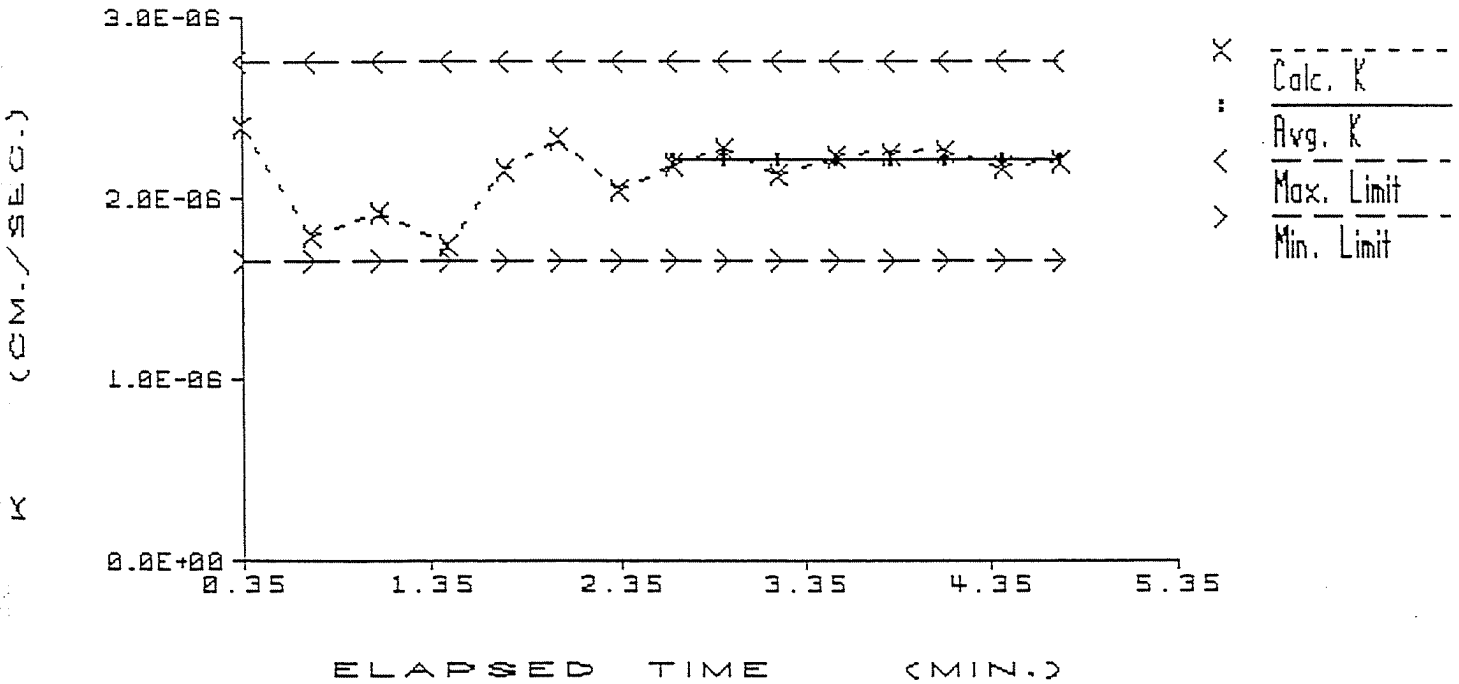
SAMPLE NUMBER: CW-A-12
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K51.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.855	2.872
LENGTH (in.)	1.987	2.014
WATER CONTENT (%)	21.1	25.1
DRY UNIT WEIGHT (pcf.)	103.4	100.8

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.2E-06

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3452 COMPLETED: October 30, 1998

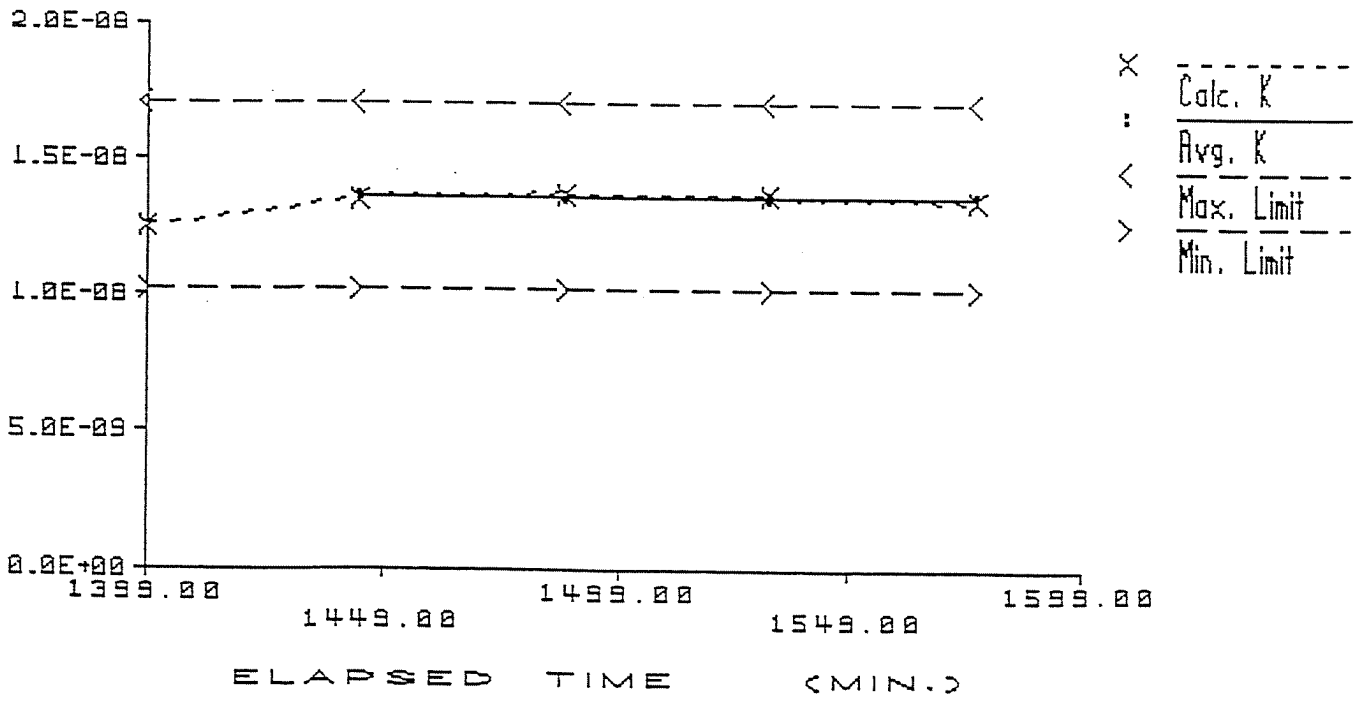
SAMPLE NUMBER: CW-A-12A
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K69.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.857	2.869
LENGTH (in.)	1.976	1.999
WATER CONTENT (%)	23.0	24.3
DRY UNIT WEIGHT (pcf.)	105.6	103.5

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3431 COMPLETED: October 26, 1998

SAMPLE NUMBER: CW-A-13
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K52.1

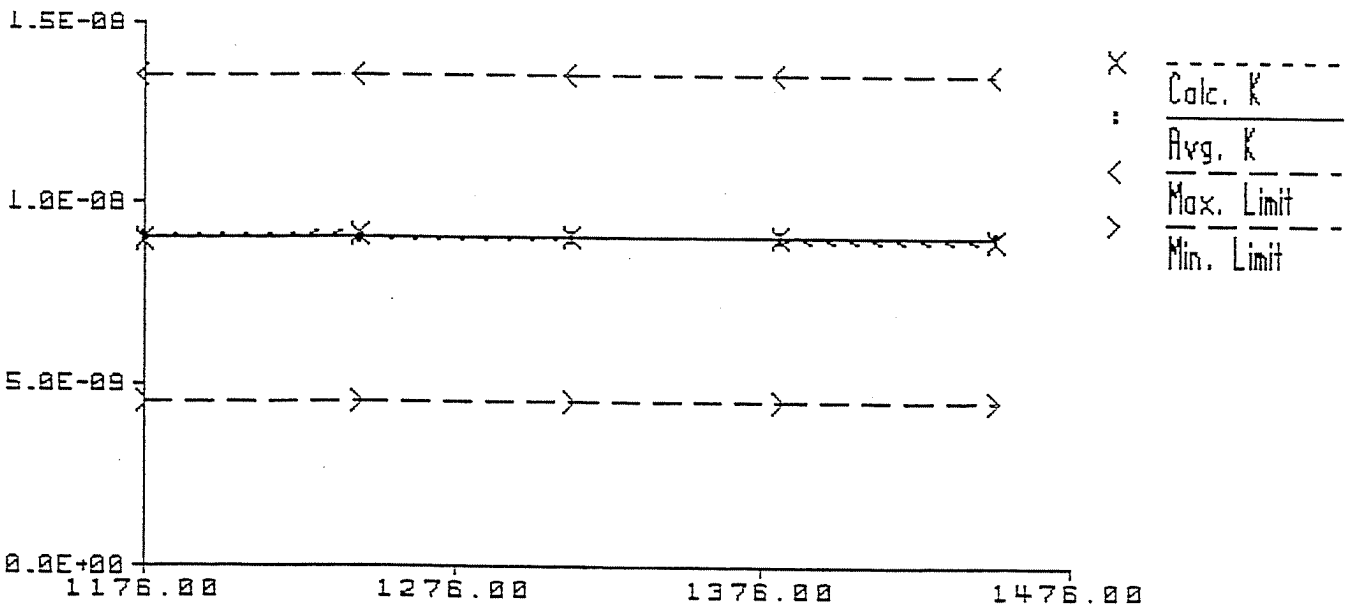
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.853	2.866
LENGTH (in.)	1.991	2.010
WATER CONTENT (%)	21.0	22.1
DRY UNIT WEIGHT (pcf.)	109.4	107.4

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 9.0E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3431 COMPLETED: October 26, 1998

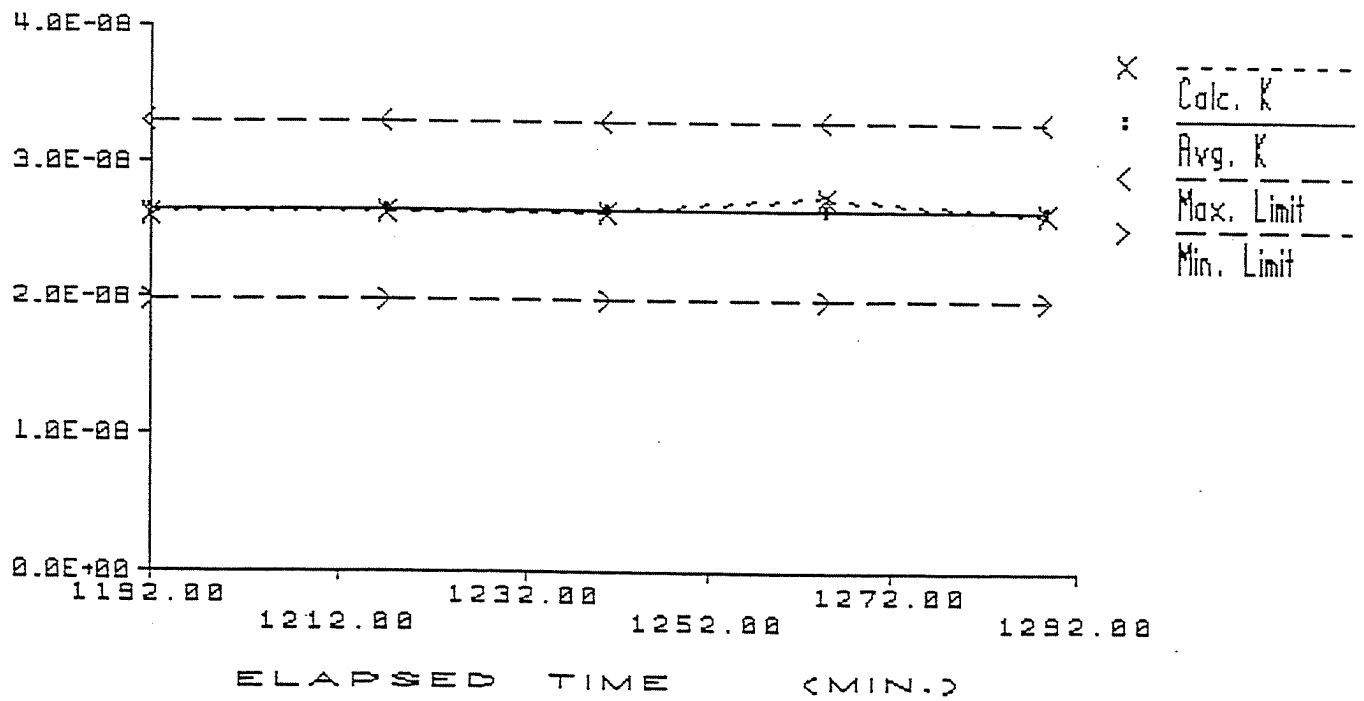
SAMPLE NUMBER:	CW-A-14
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K53.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.850	2.865
LENGTH (in.)	1.986	2.003
WATER CONTENT (%)	20.7	24.2
DRY UNIT WEIGHT (pcf.)	104.4	102.5

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.6E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3431 COMPLETED: October 29, 1998

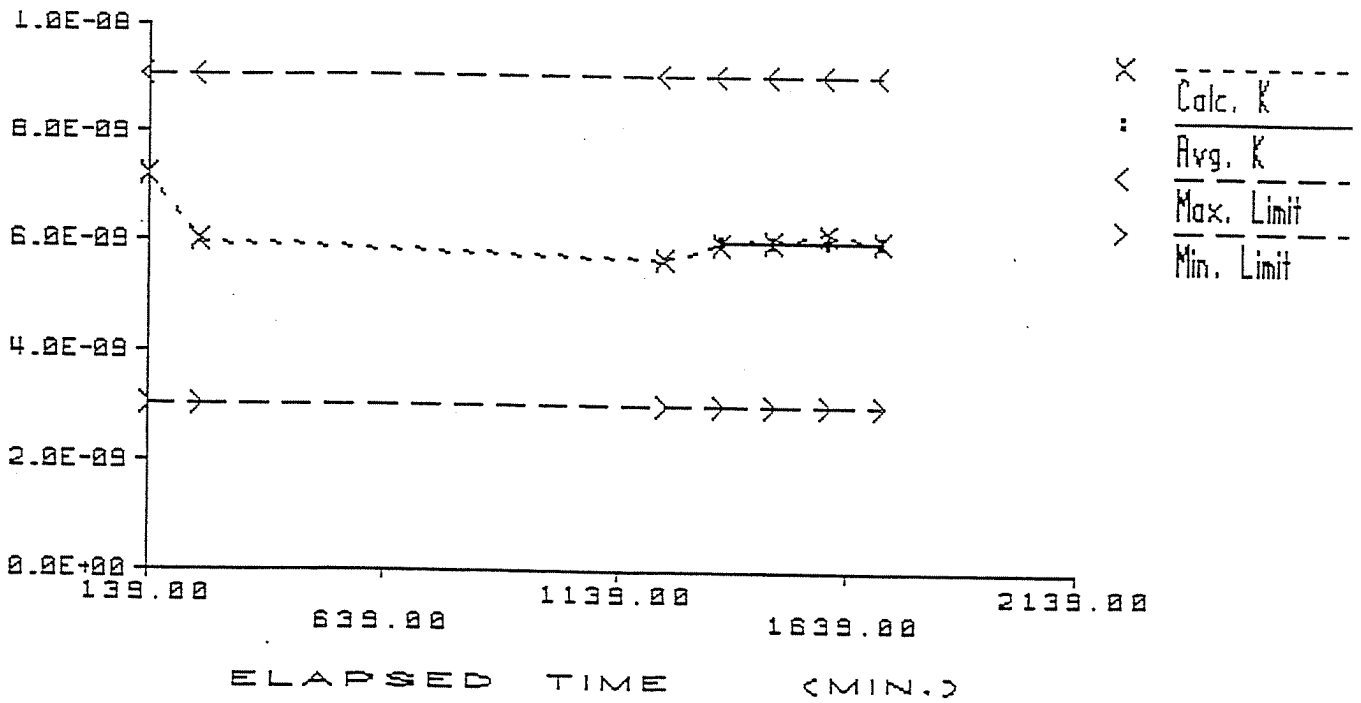
SAMPLE NUMBER: CW-A-15
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K54.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.849	2.871
LENGTH (in.)	1.522	1.530
WATER CONTENT (%)	21.6	23.2
DRY UNIT WEIGHT (pcf.)	106.6	104.4

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3.6
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	27
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 6.0E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3436 COMPLETED: October 28, 1998

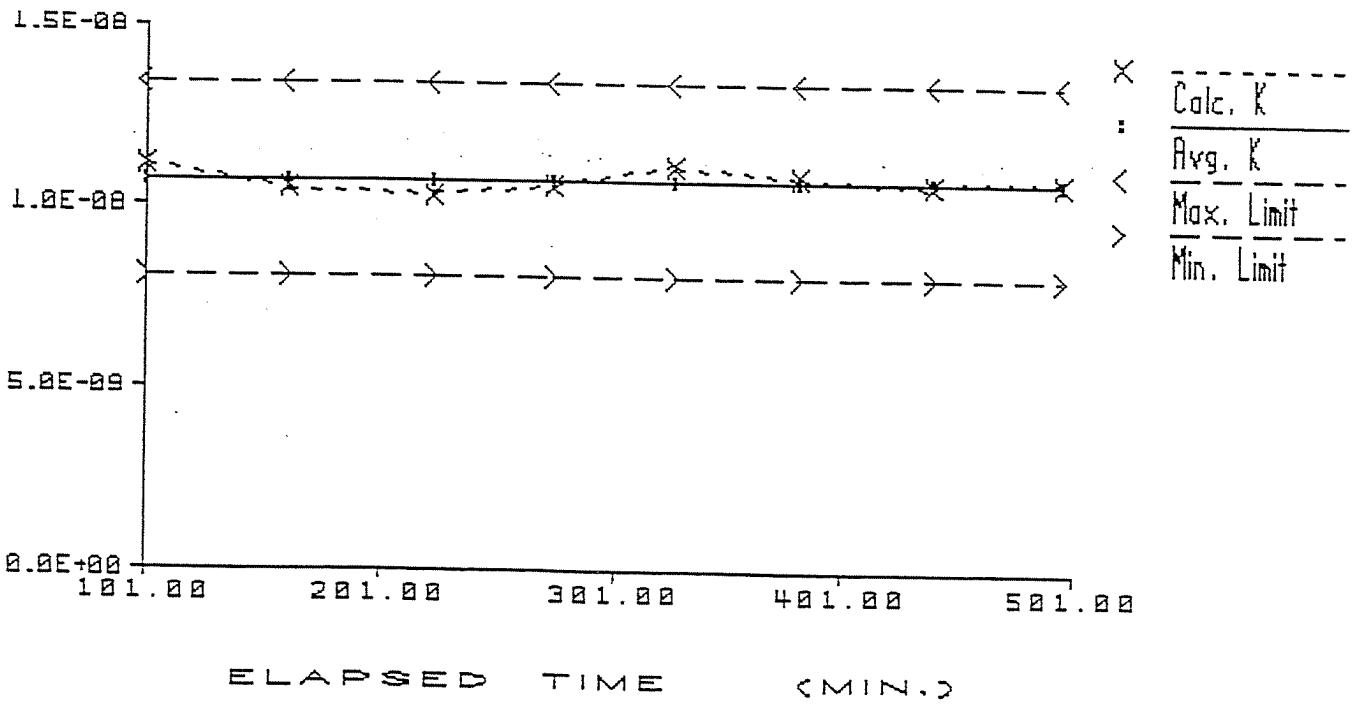
SAMPLE NUMBER: CW-A-16
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K55.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.865	2.866
LENGTH (in.)	1.993	1.987
WATER CONTENT (%)	22.6	22.9
DRY UNIT WEIGHT (pcf.)	105.3	105.5

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.1E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3436 COMPLETED: October 30, 1998

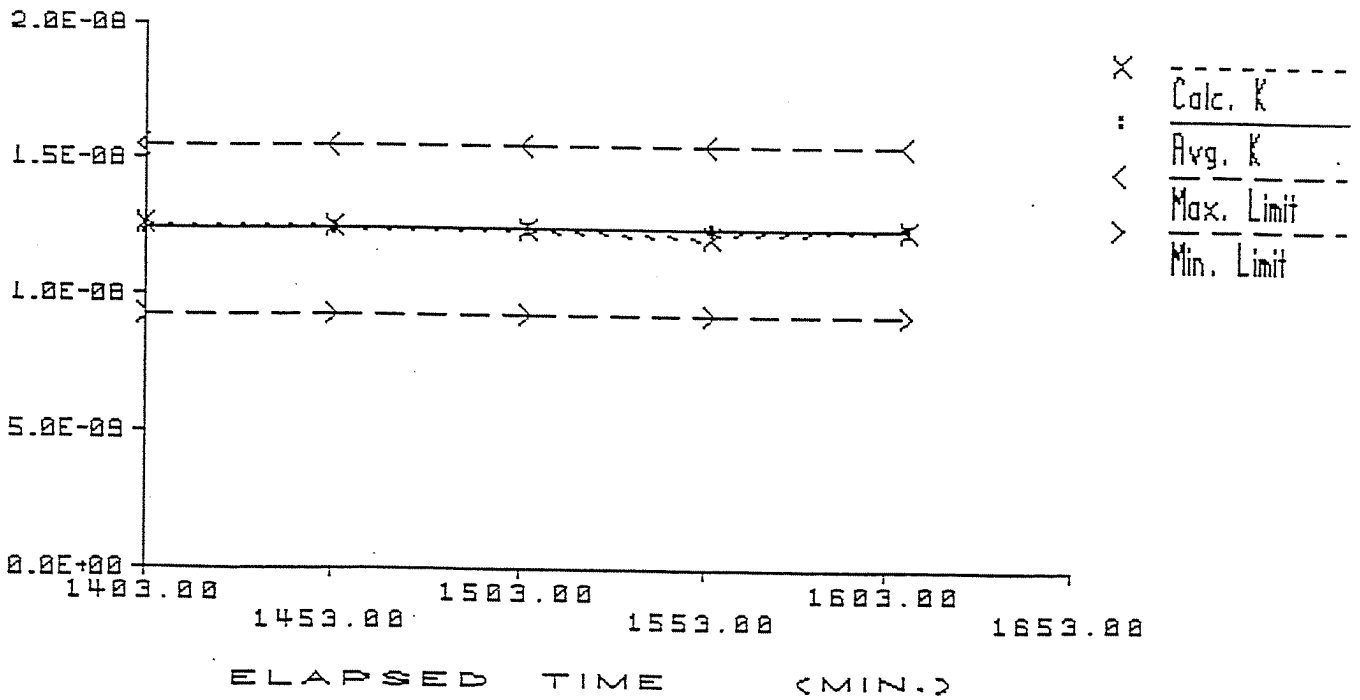
SAMPLE NUMBER: CW-A-17
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K56.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.856	2.870
LENGTH (in.)	1.907	1.912
WATER CONTENT (%)	22.4	23.3
DRY UNIT WEIGHT (pcf.)	105.9	104.6

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3.2
INITIAL HYDRAULIC GRADIENT	29
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.2E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3436 COMPLETED: October 29, 1998

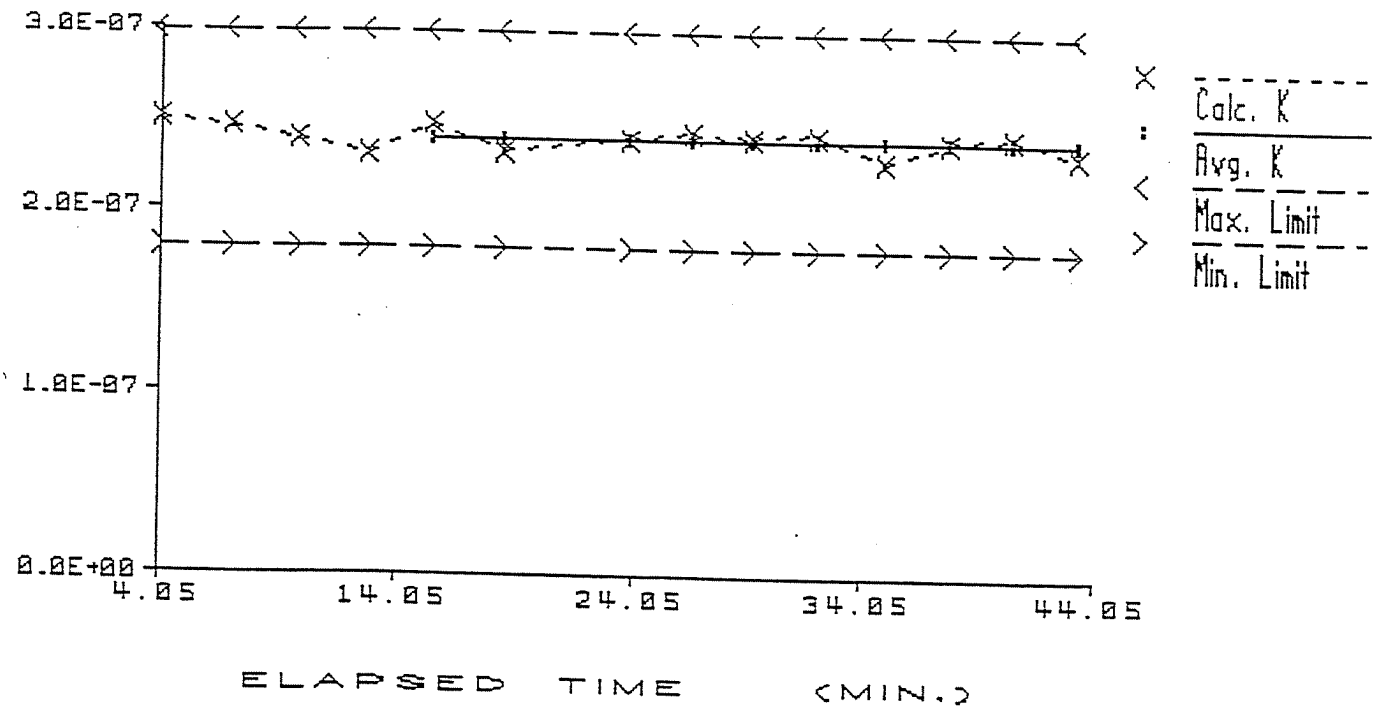
SAMPLE NUMBER: CW-A-18
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K57.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.848	2.856
LENGTH (in.)	2.015	2.031
WATER CONTENT (%)	20.6	25.1
DRY UNIT WEIGHT (pcf.)	101.2	99.8

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.4E-07

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

APPENDIX C2

CUT-OFF WALL "B" SHELBY TUBES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3343 COMPLETED: August 28, 1998

SAMPLE NUMBER:	CW-B-1
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K9.1

SAMPLE DATA:

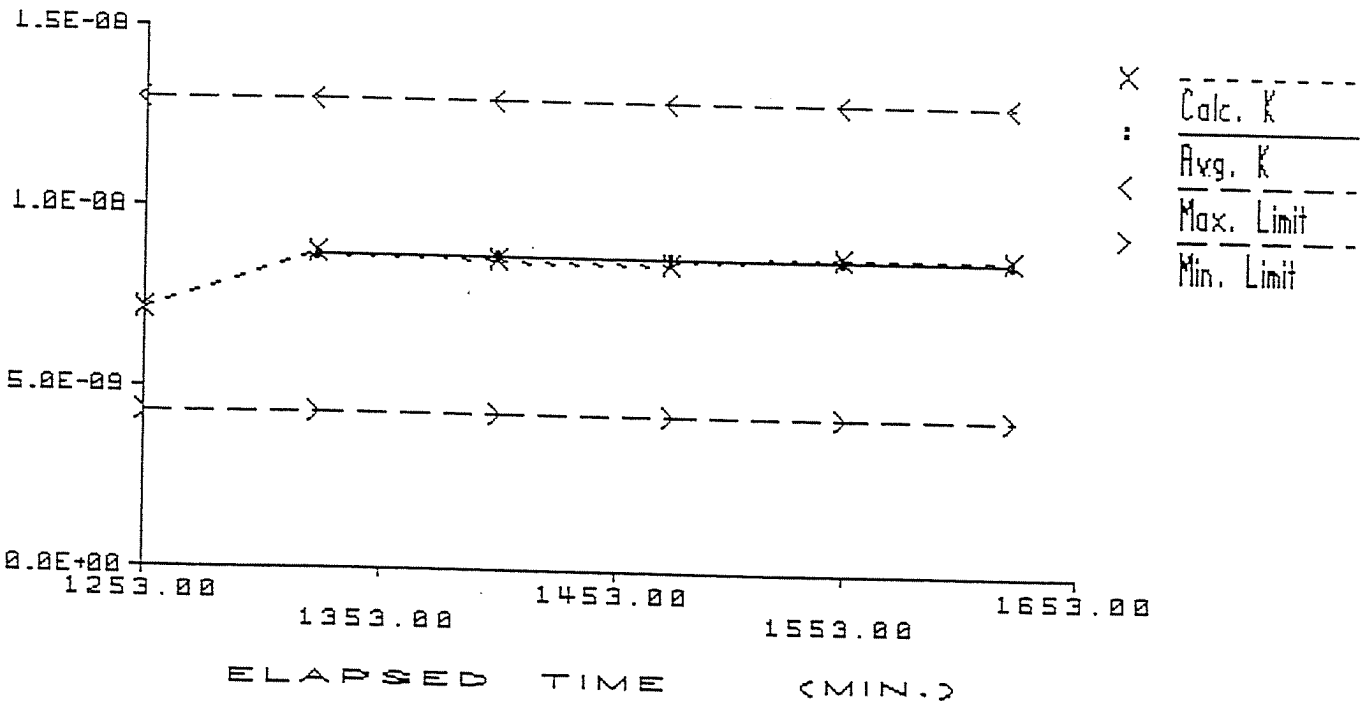
	INITIAL	FINAL
DIAMETER (in.)	2.855	2.856
LENGTH (in.)	1.970	1.966
WATER CONTENT (%)	22.7	23.5
DRY UNIT WEIGHT (pcf.)	104.6	104.8

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 8.7E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3347 COMPLETED: September 4, 1998

SAMPLE NUMBER: CW-B-2
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K10.1

SAMPLE DATA:

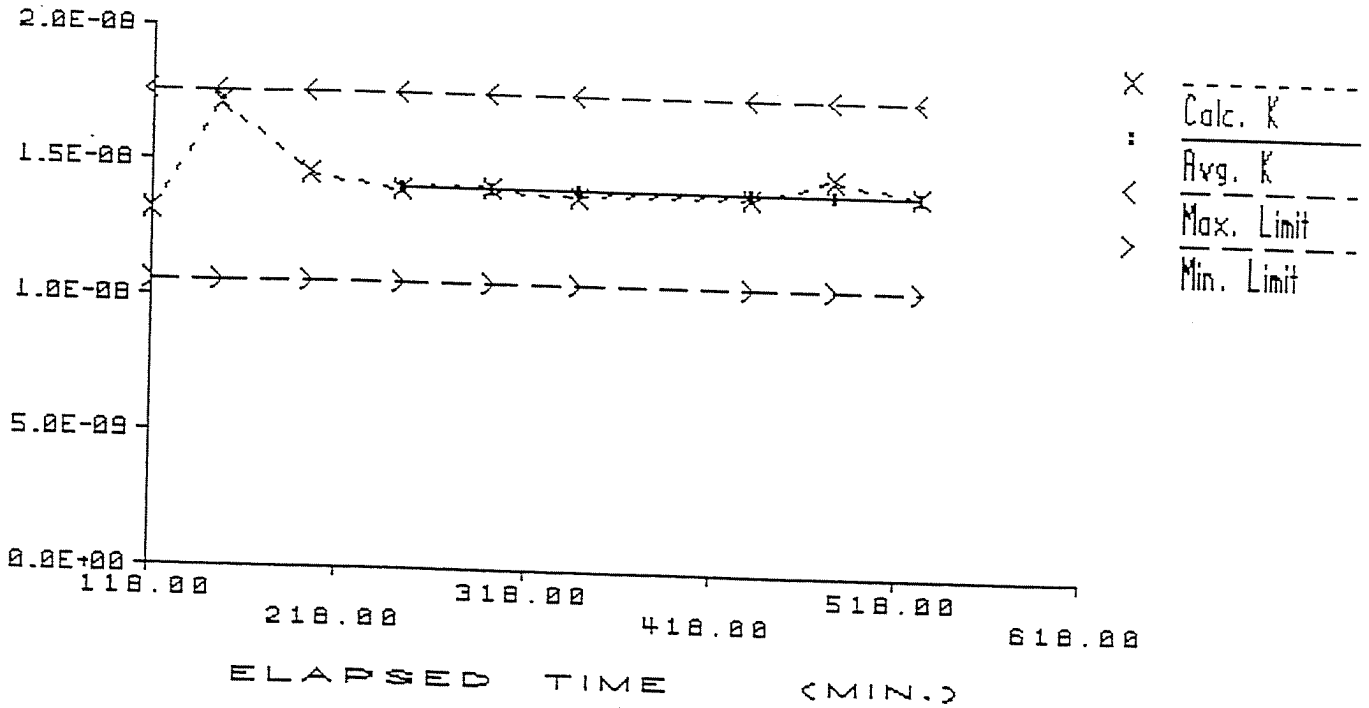
	INITIAL	FINAL
DIAMETER (in.)	2.854	2.867
LENGTH (in.)	2.040	2.037
WATER CONTENT (%)	21.8	23.9
DRY UNIT WEIGHT (pcf.)	104.5	103.7

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY vs TIME



CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3347 COMPLETED: September 7, 1998

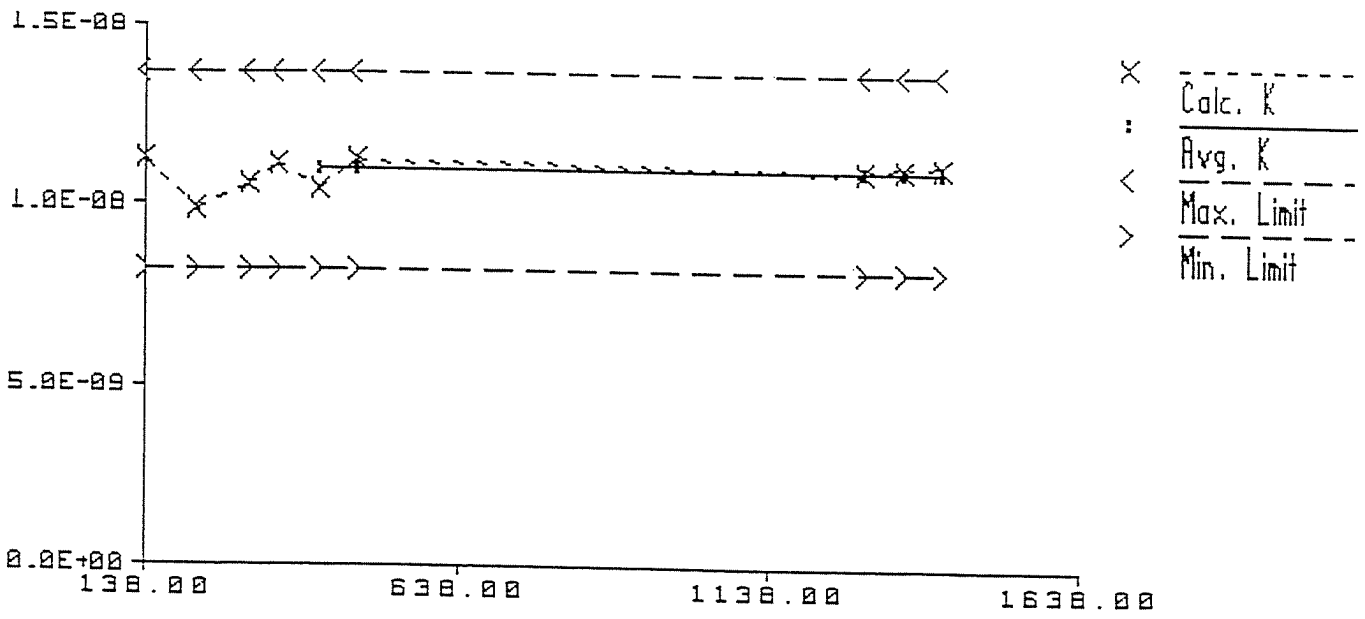
SAMPLE NUMBER: CW-B-3
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K11.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.855	2.866
LENGTH (in.)	2.022	2.018
WATER CONTENT (%)	22.0	23.4
DRY UNIT WEIGHT (pcf.)	105.1	104.5

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	27
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.1E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3354 COMPLETED: September 4, 1998

SAMPLE NUMBER: CW-B-4
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K12.1

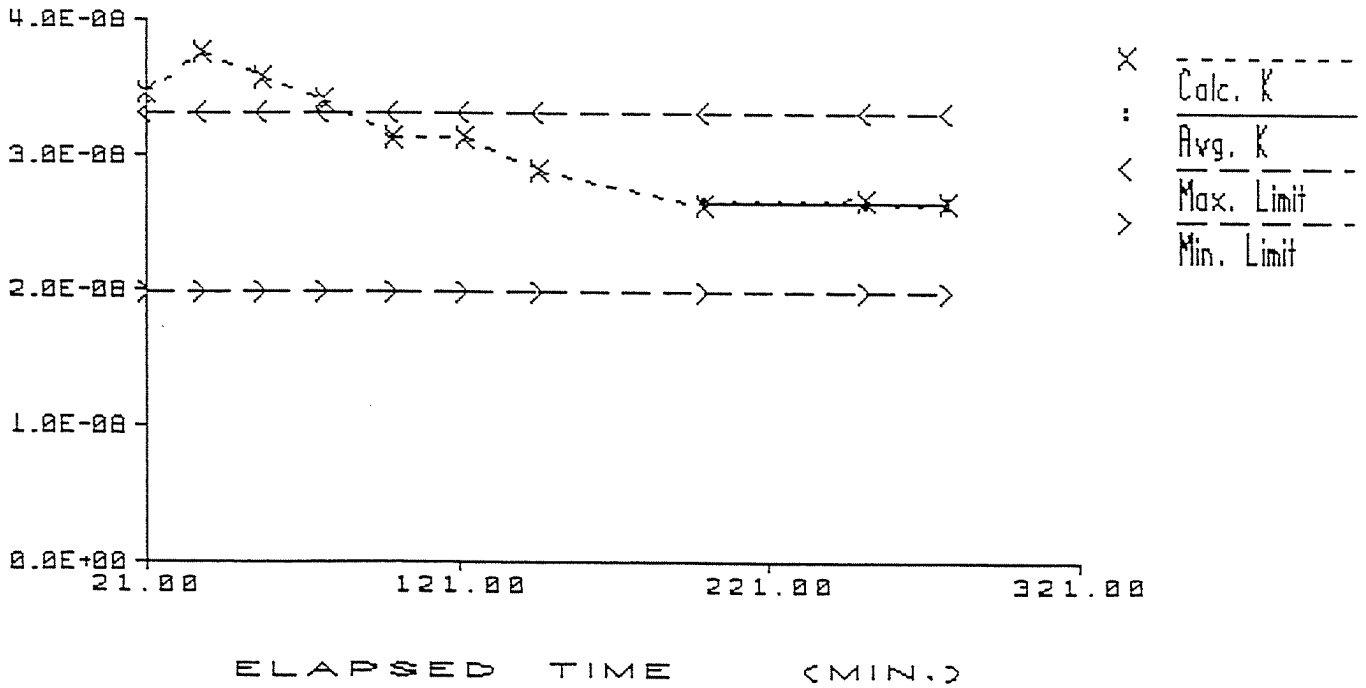
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.846	2.848
LENGTH (in.)	1.744	1.741
WATER CONTENT (%)	22.7	25.7
DRY UNIT WEIGHT (pcf.)	100.5	100.6

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	100
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3.4
INITIAL HYDRAULIC GRADIENT	29
FINAL HYDRAULIC GRADIENT	27
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.6E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3354 COMPLETED: September 14, 1998

SAMPLE NUMBER:	CW-B-5
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K13.1

SAMPLE DATA:

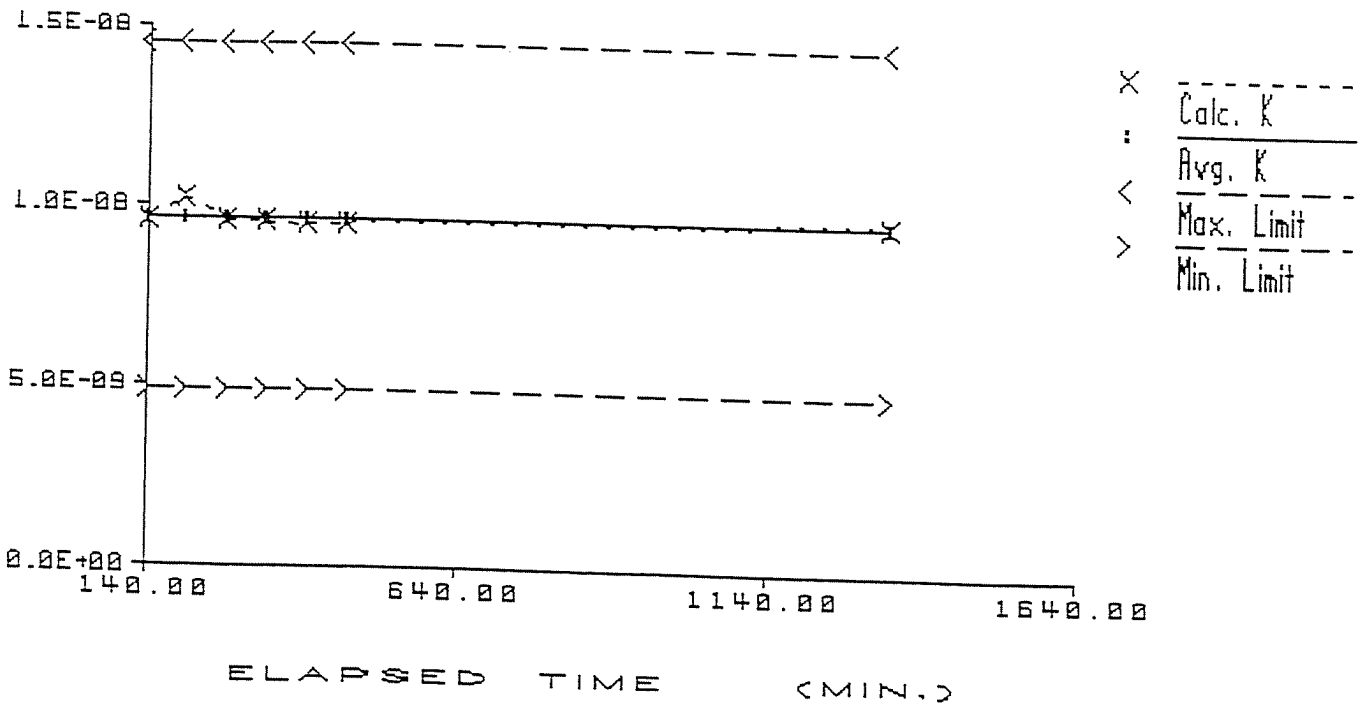
	INITIAL	FINAL
DIAMETER (in.)	2.855	2.860
LENGTH (in.)	2.003	2.003
WATER CONTENT (%)	24.2	24.9
DRY UNIT WEIGHT (pcf.)	102.3	102.0

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 9.7E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3357 COMPLETED: September 17, 1998

SAMPLE NUMBER: CW-B-6
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K18.1

SAMPLE DATA:

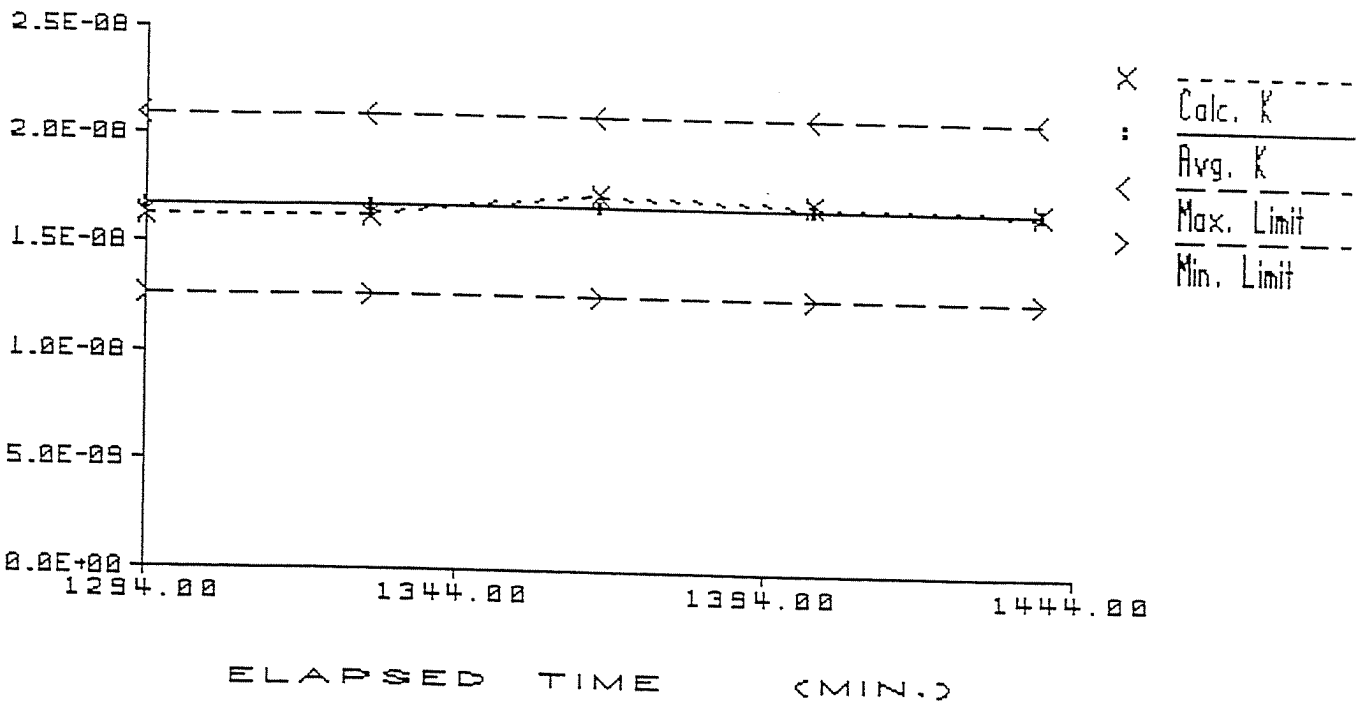
	INITIAL	FINAL
DIAMETER (in.)	2.859	2.864
LENGTH (in.)	1.979	1.985
WATER CONTENT (%)	24.2	25.4
DRY UNIT WEIGHT (pcf.)	102.0	101.3

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.7E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3361 COMPLETED: September 23, 1998

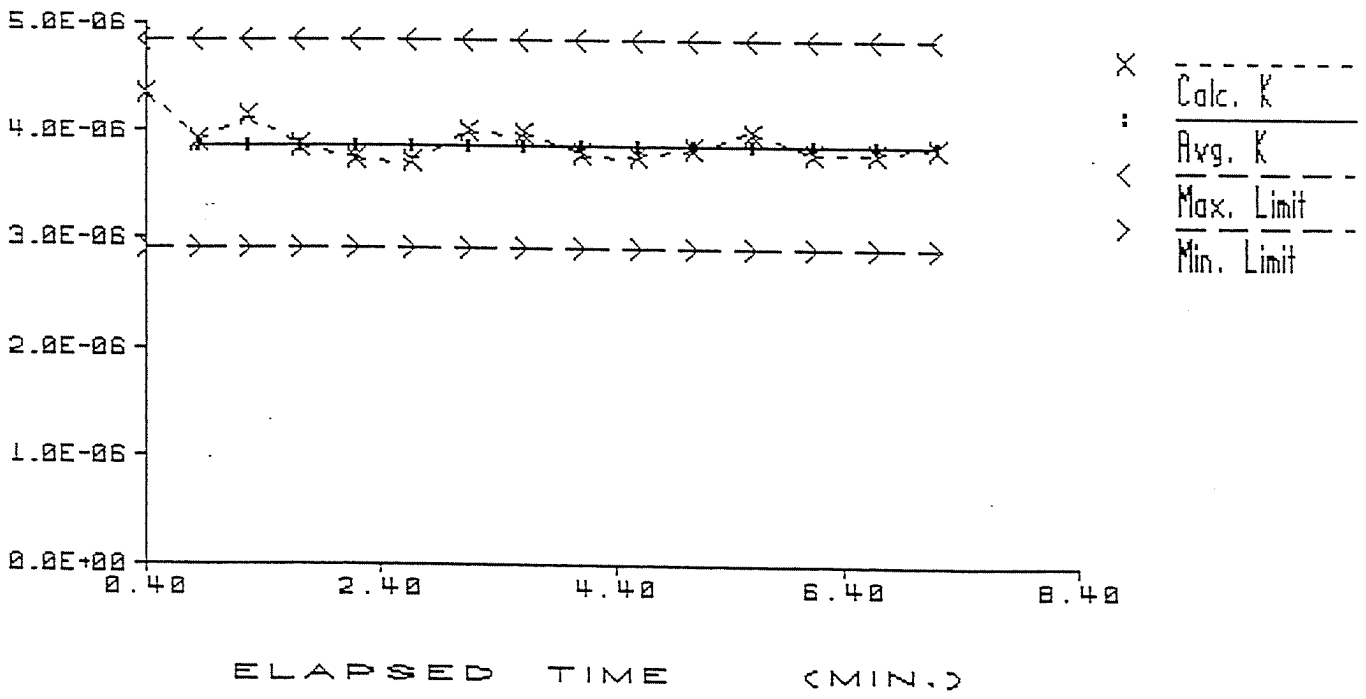
SAMPLE NUMBER: CW-B-7
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K21.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.853	2.852
LENGTH (in.)	2.038	2.023
WATER CONTENT (%)	23.4	26.1
DRY UNIT WEIGHT (pcf.)	98.5	99.3

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	4.4
INITIAL HYDRAULIC GRADIENT	11
FINAL HYDRAULIC GRADIENT	9
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 3.9E-06

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

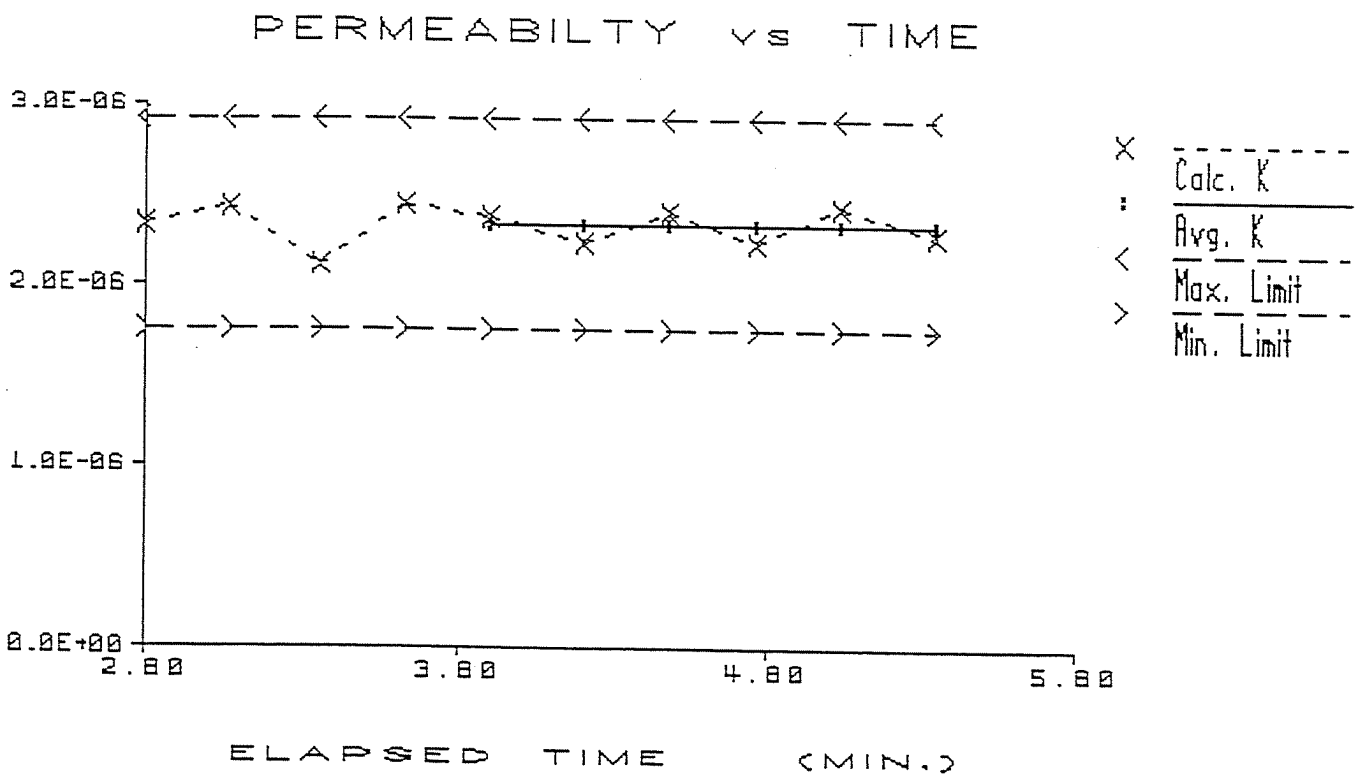
GZA FILE: 55252.00 GZA WORK ORDER NO. 3442 COMPLETED: October 20, 1998

SAMPLE NUMBER: CW-B-7A
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K59.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.872	2.858
LENGTH (in.)	2.085	2.057
WATER CONTENT (%)	21.7	21.7
DRY UNIT WEIGHT (pcf.)	104.8	107.2

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.3E-06



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3451 COMPLETED: October 27, 1998

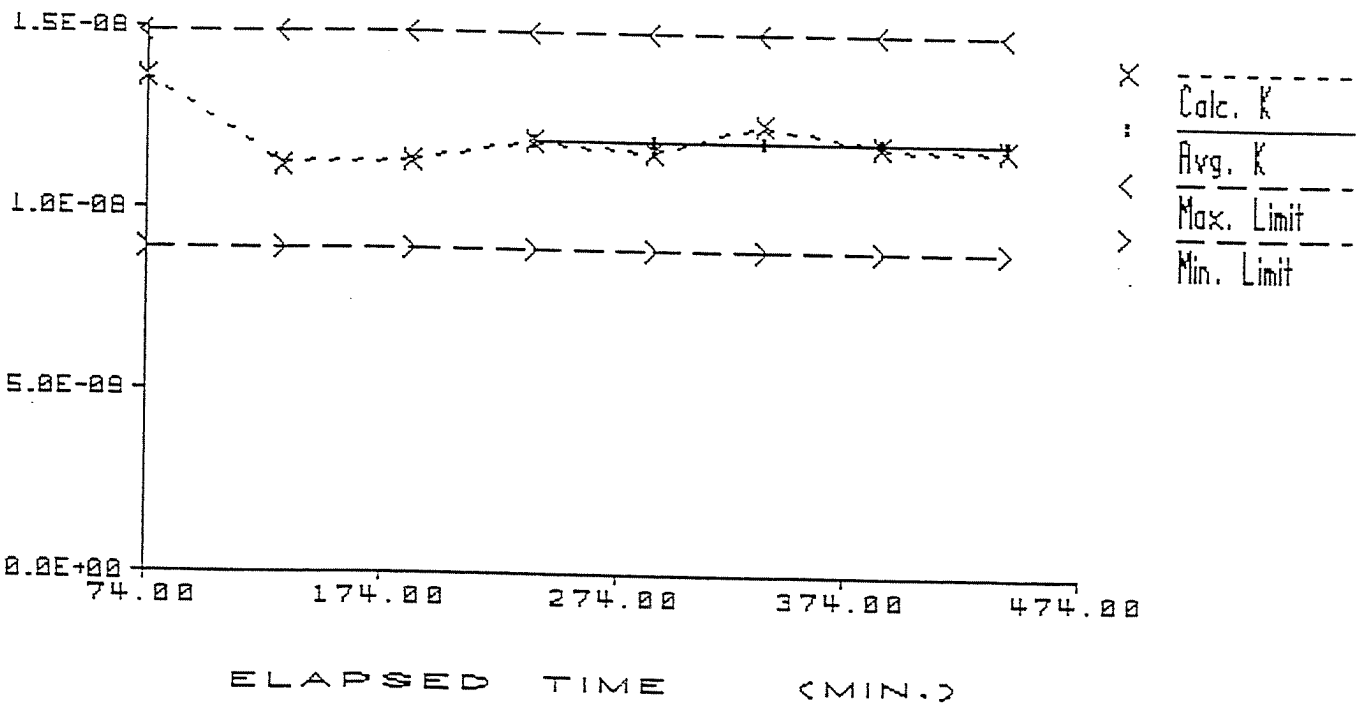
SAMPLE NUMBER: CW-B-7D
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K63.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.860	2.860
LENGTH (in.)	2.033	2.027
WATER CONTENT (%)	23.4	23.7
DRY UNIT WEIGHT (pcf.)	103.9	104.2

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.2E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3361 COMPLETED: September 23, 1998

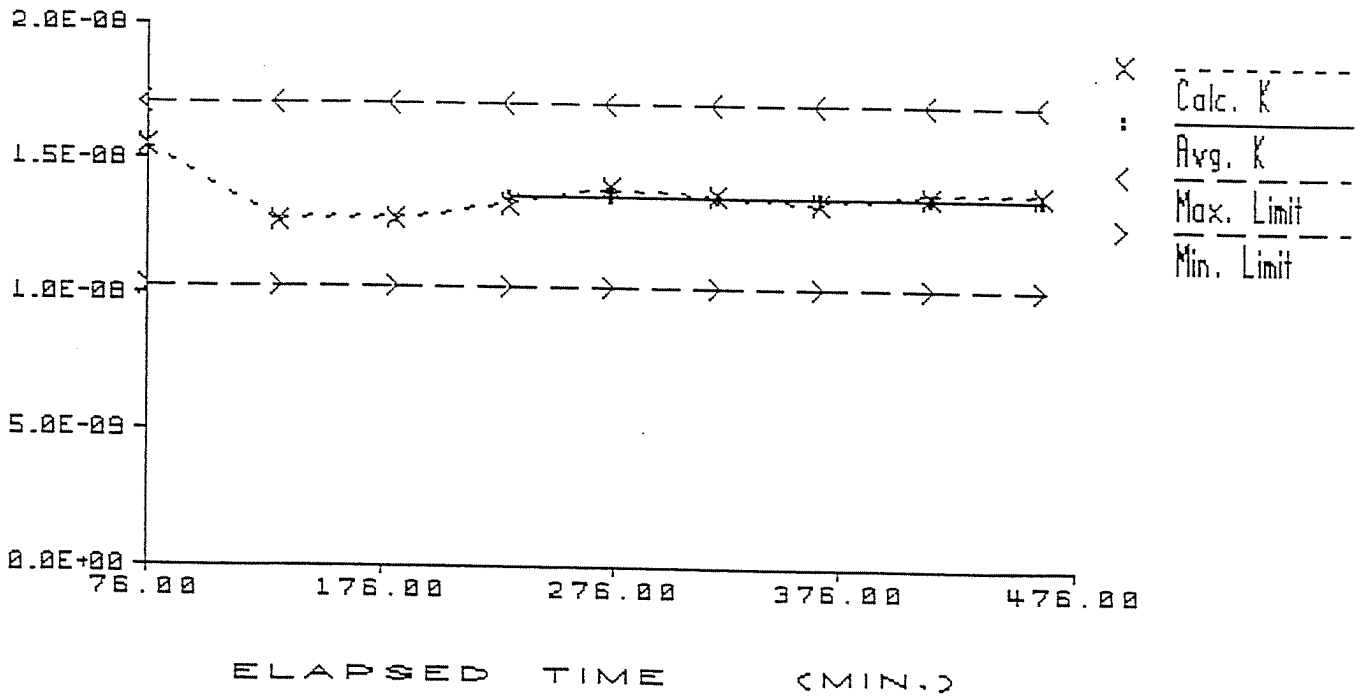
SAMPLE NUMBER: CW-B-8
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K22.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.842	2.851
LENGTH (in.)	2.024	2.016
WATER CONTENT (%)	21.4	23.3
DRY UNIT WEIGHT (pcf.)	104.7	104.5

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3451 COMPLETED: October 27, 1998

SAMPLE NUMBER: CW-B-9
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K64.1

SAMPLE DATA:

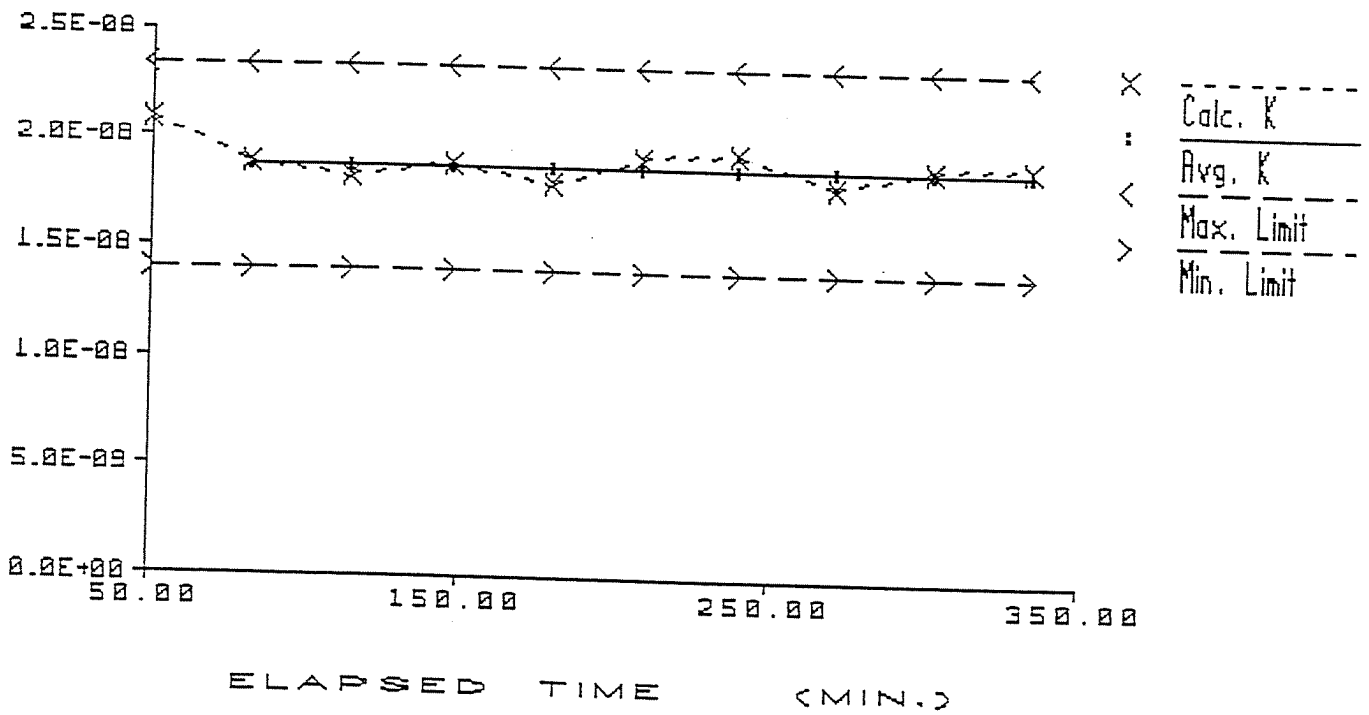
	INITIAL	FINAL
DIAMETER (in.)	2.858	2.848
LENGTH (in.)	1.992	1.974
WATER CONTENT (%)	24.8	25.2
DRY UNIT WEIGHT (pcf.)	100.3	101.9

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.9E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3451 COMPLETED: October 29, 1998

SAMPLE NUMBER:	CW-B-10
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K65.1

SAMPLE DATA:

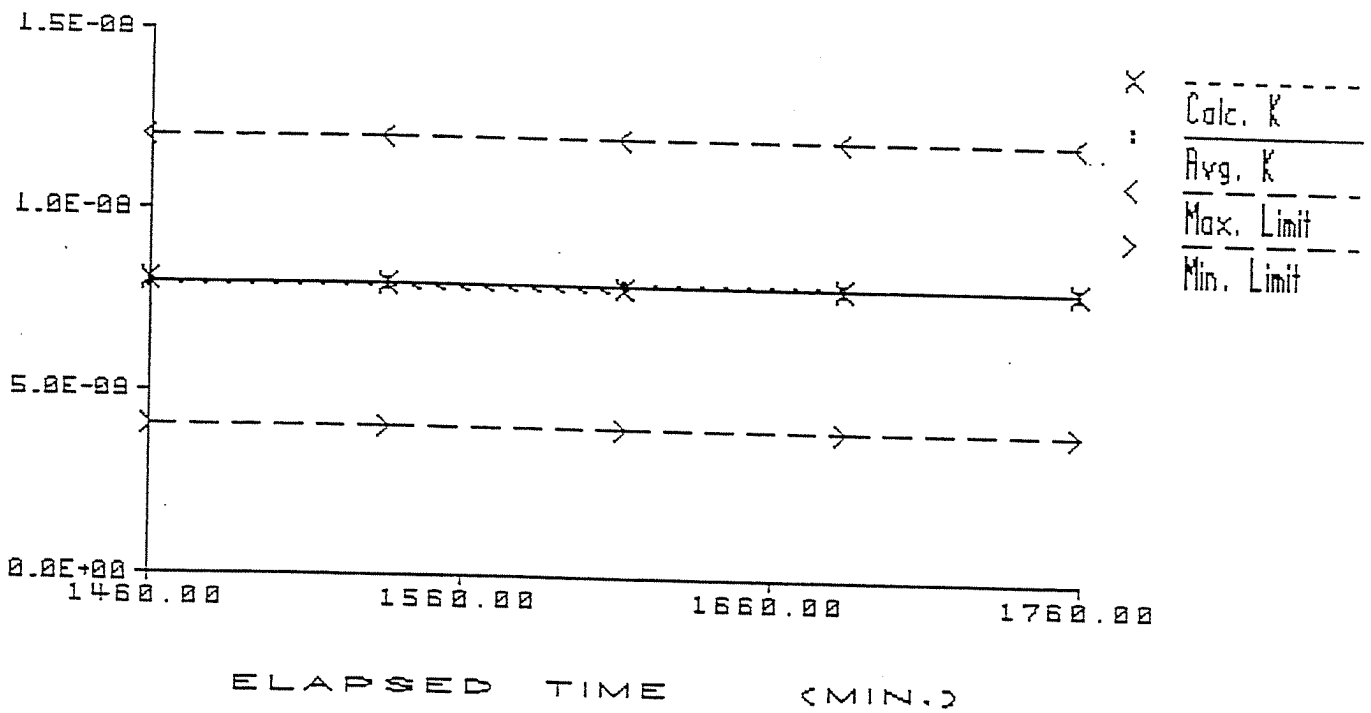
	INITIAL	FINAL
DIAMETER (in.)	2.874	2.883
LENGTH (in.)	2.028	2.036
WATER CONTENT (%)	22.7	23.5
DRY UNIT WEIGHT (pcf.)	106.3	105.2

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	30
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 8.0E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

APPENDIX C3

FINAL COVER SYSTEM SHELBY TUBES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
NIAGARA FALLS, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3343 COMPLETED: August 27, 1998

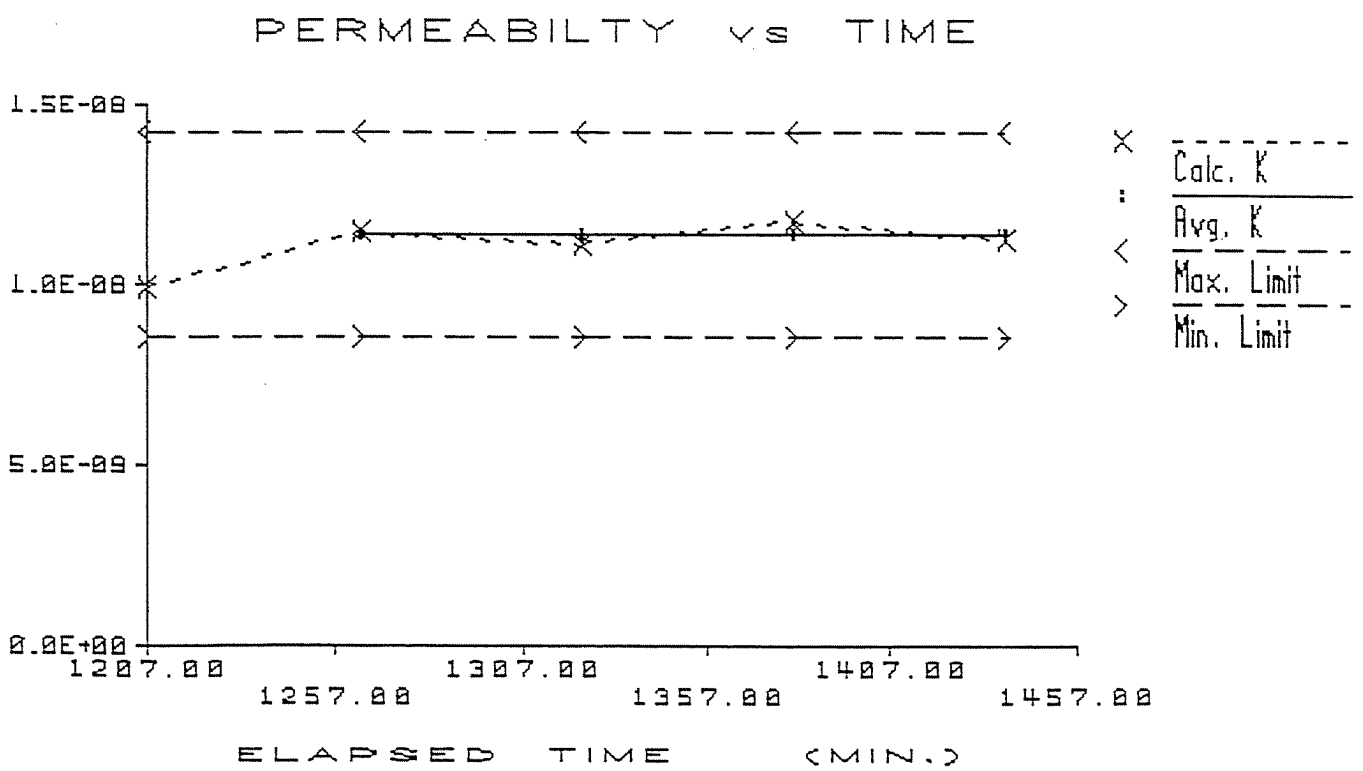
SAMPLE NUMBER: FC-1-1
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K4.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.859	2.893
LENGTH (in.)	1.990	2.016
WATER CONTENT (%)	21.9	24.7
DRY UNIT WEIGHT (pcf.)	106.0	102.2

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.1E-08



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3343 COMPLETED: August 31, 1998

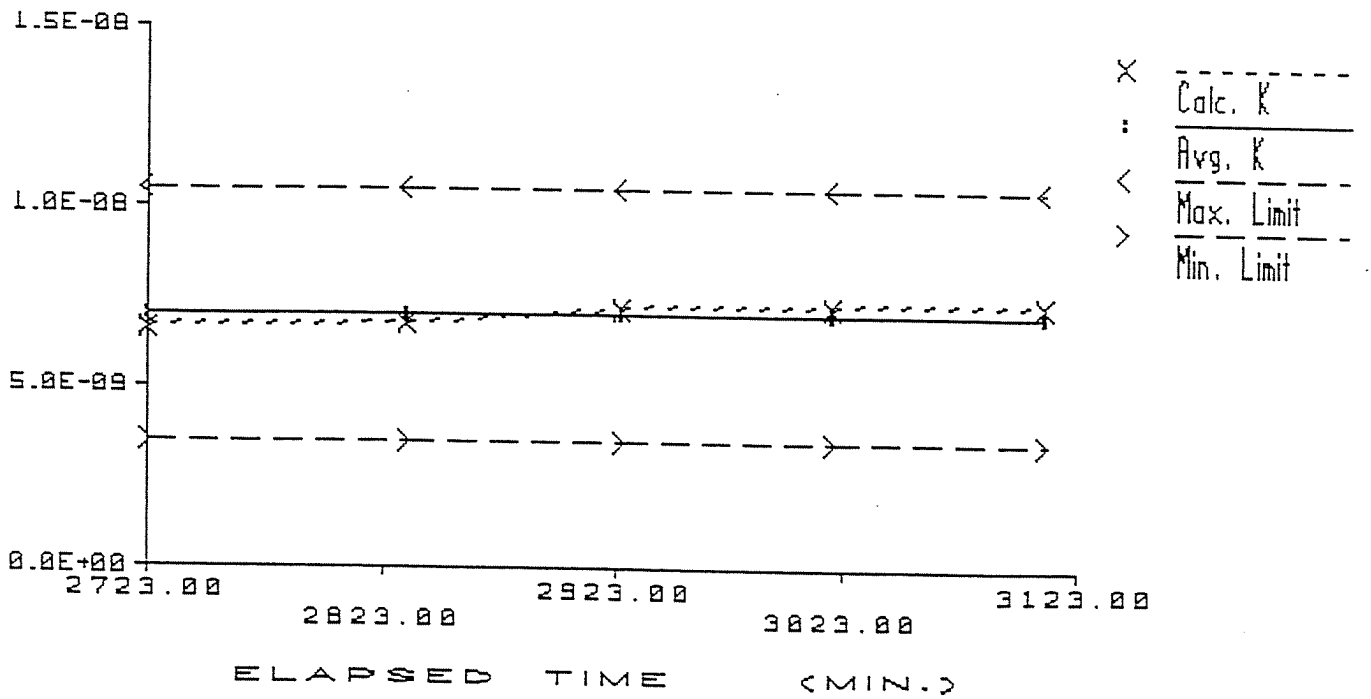
SAMPLE NUMBER: FC-1-2
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K5.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.856	2.890
LENGTH (in.)	1.988	2.045
WATER CONTENT (%)	20.3	23.9
DRY UNIT WEIGHT (pcf.)	110.0	104.4

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	27
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 7.0E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3343 COMPLETED: August 31, 1998

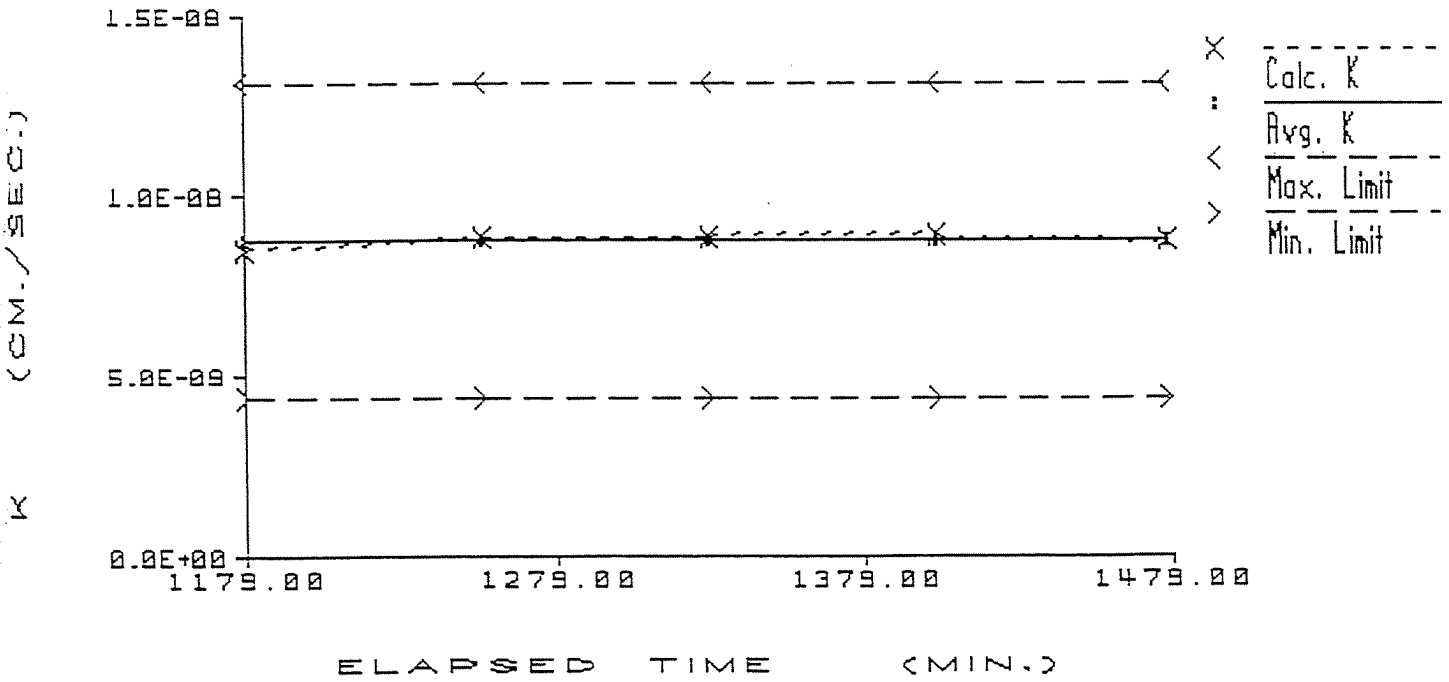
SAMPLE NUMBER:	FC-1-3
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K6.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.853	2.860
LENGTH (in.)	1.992	1.999
WATER CONTENT (%)	21.7	22.3
DRY UNIT WEIGHT (pcf.)	107.7	106.8

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 8.7E-09

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3343 COMPLETED: August 31, 1998

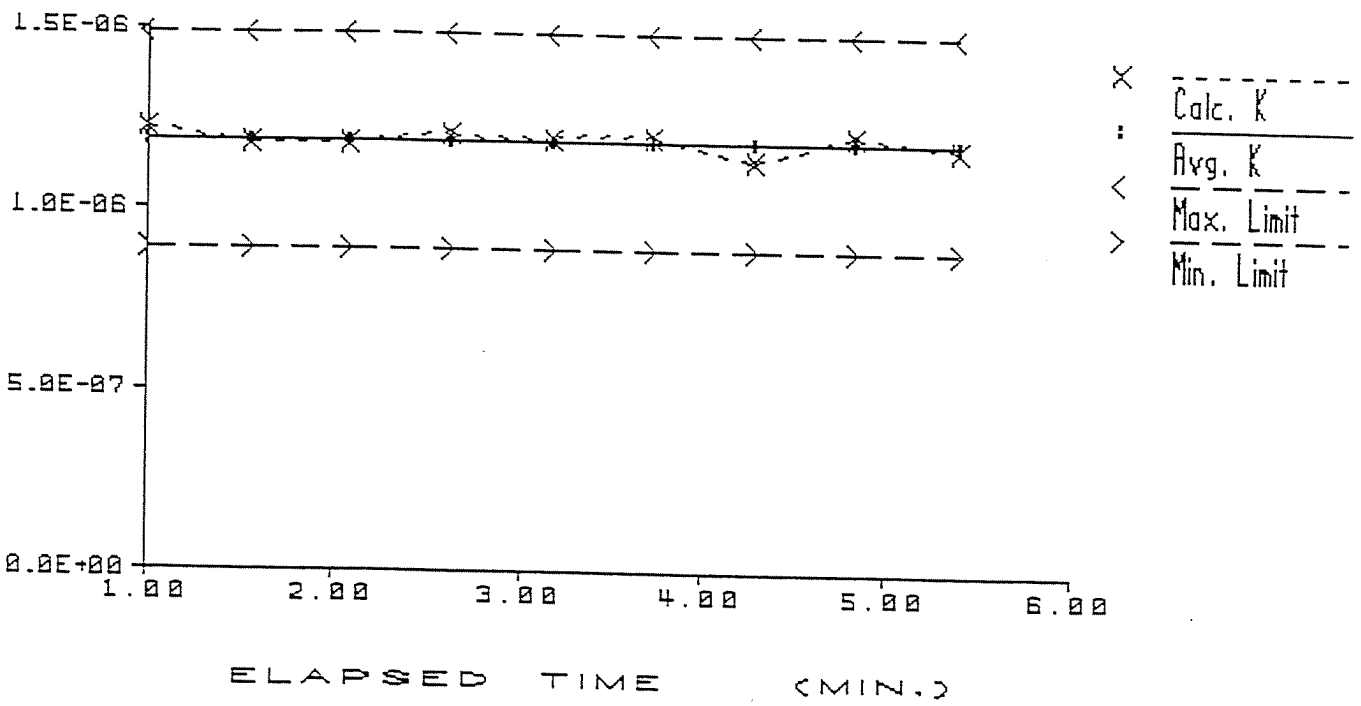
SAMPLE NUMBER: FC-1-4
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K7.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.846	2.864
LENGTH (in.)	1.995	2.008
WATER CONTENT (%)	20.7	23.8
DRY UNIT WEIGHT (pcf.)	105.7	103.7

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	100
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.2E-06

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3343 COMPLETED: September 4, 1998

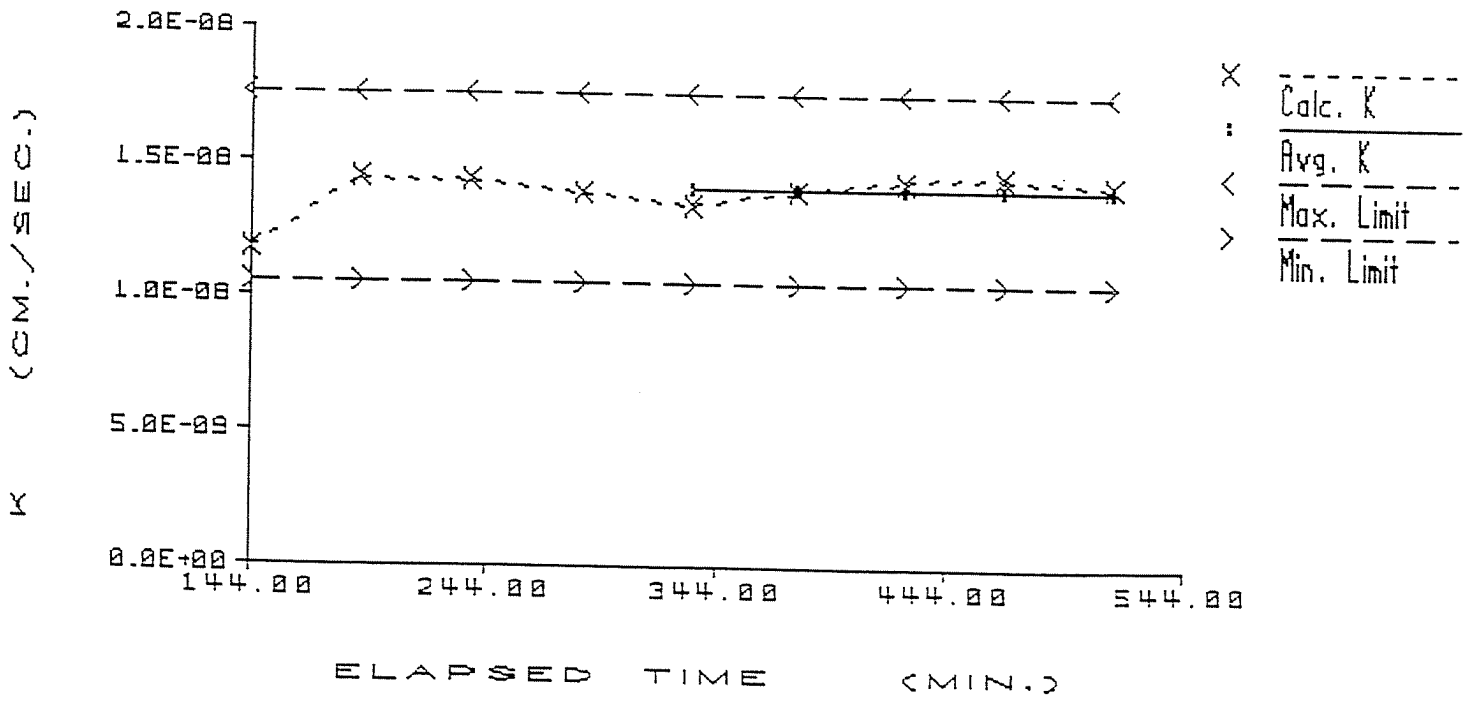
SAMPLE NUMBER: FC-1-5
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K8.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.853	2.857
LENGTH (in.)	2.008	2.009
WATER CONTENT (%)	26.0	26.3
DRY UNIT WEIGHT (pcf.)	100.1	99.7

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.4E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3357 COMPLETED: September 14, 1998

SAMPLE NUMBER: FC-2-2
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K14.1

SAMPLE DATA:

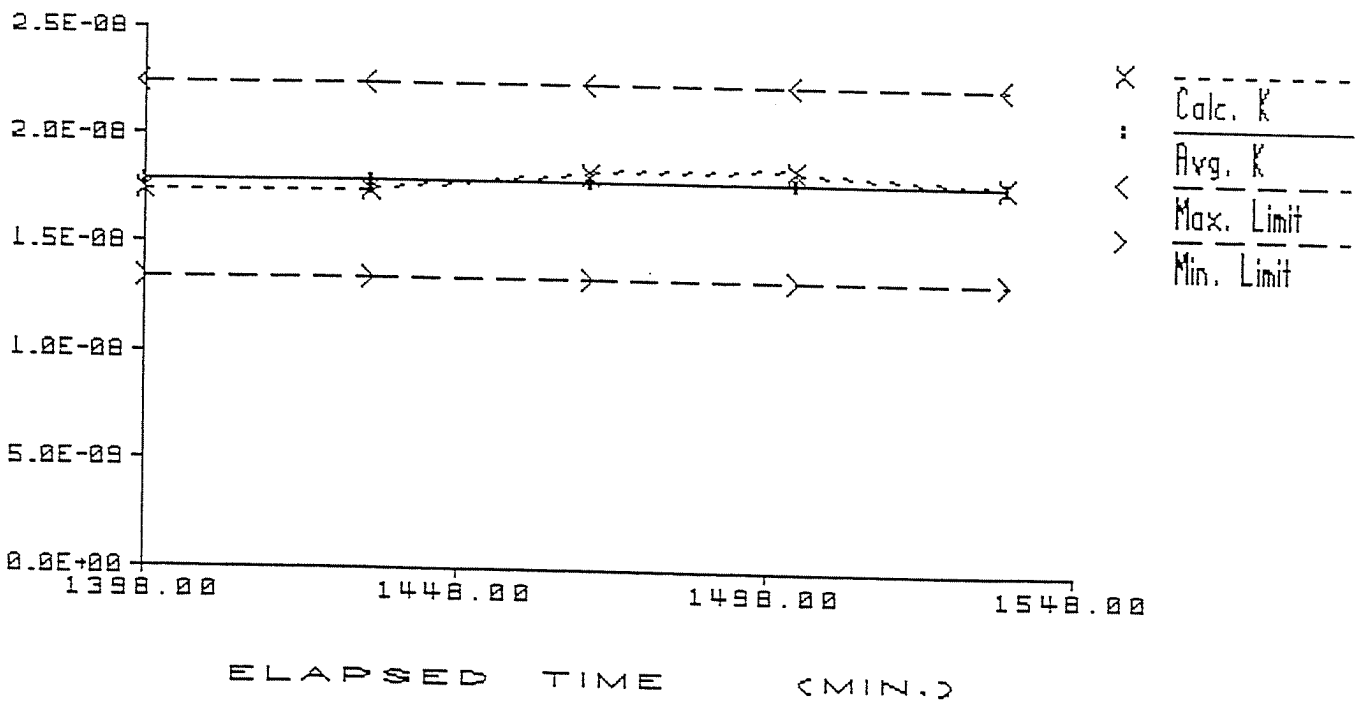
	INITIAL	FINAL
DIAMETER (in.)	2.849	2.862
LENGTH (in.)	1.994	2.028
WATER CONTENT (%)	19.5	24.1
DRY UNIT WEIGHT (pcf.)	105.8	103.1

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.8E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3357 COMPLETED: September 17, 1998

SAMPLE NUMBER: FC-2-3
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K16.1

SAMPLE DATA:

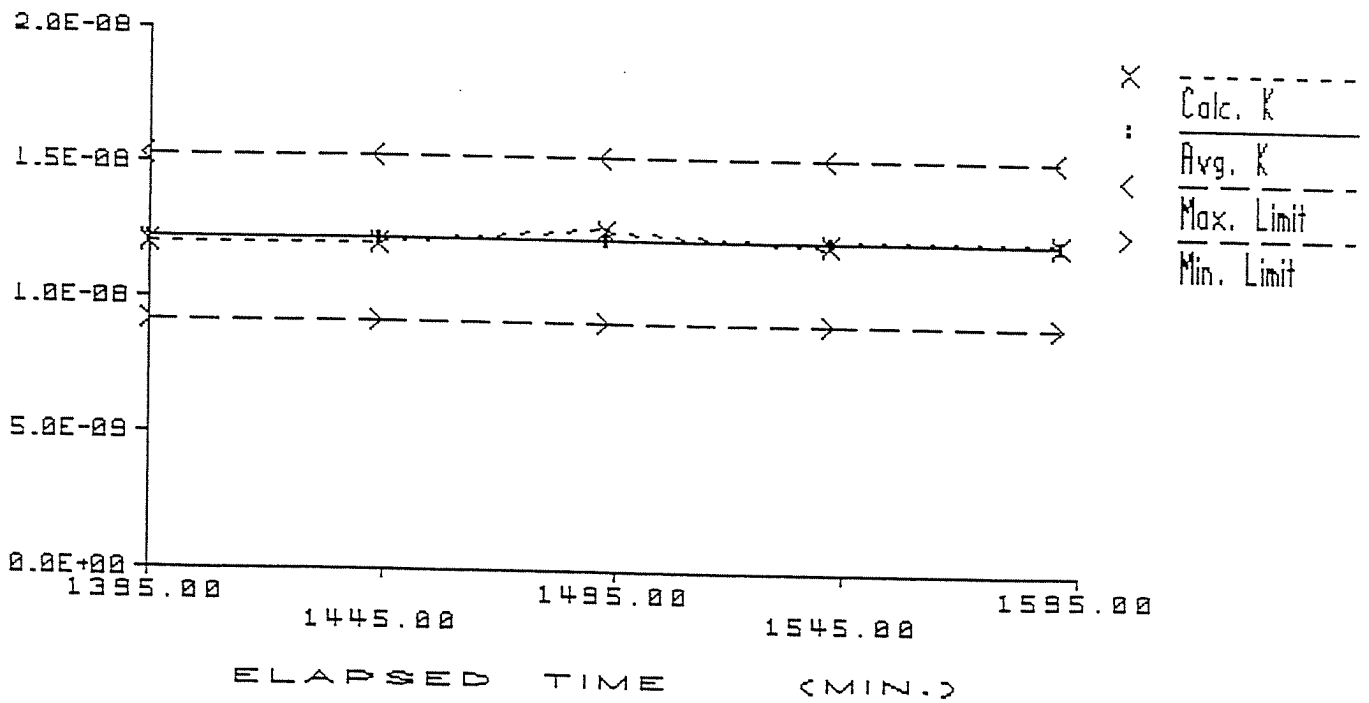
	INITIAL	FINAL
DIAMETER (in.)	2.853	2.857
LENGTH (in.)	2.006	2.011
WATER CONTENT (%)	22.1	23.5
DRY UNIT WEIGHT (pcf.)	105.3	104.7

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.2E-08

PERMEABILTY vs TIME



CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3360 COMPLETED: September 23, 1998

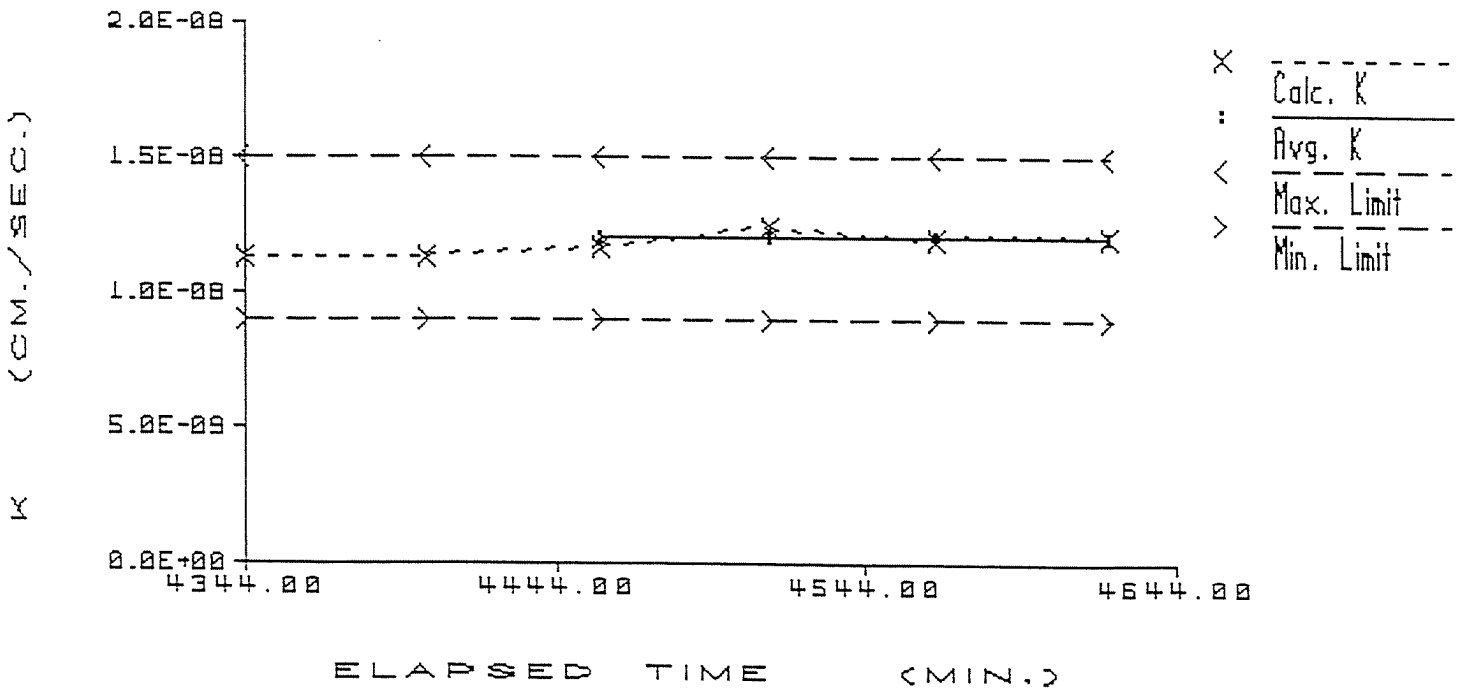
SAMPLE NUMBER:	FC-2-1
MATERIAL SOURCE:	WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE:	SHELBY TUBE
TEST SERIES NO.:	K19.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.838	2.858
LENGTH (in.)	1.769	1.780
WATER CONTENT (%)	22.8	26.0
DRY UNIT WEIGHT (pcf.)	102.2	100.2

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3.4
INITIAL HYDRAULIC GRADIENT	29
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.2E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3361 COMPLETED: September 29, 1998

SAMPLE NUMBER: FC-2-4
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K23.1

SAMPLE DATA:

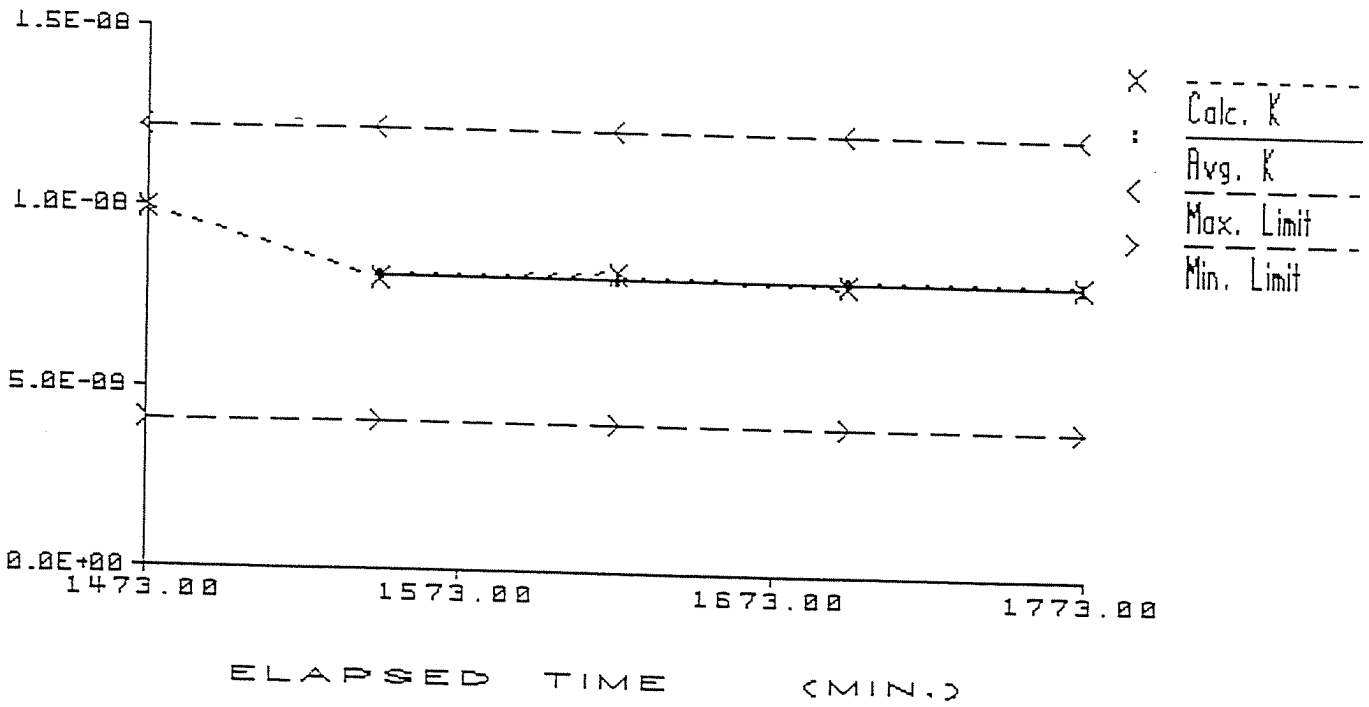
	INITIAL	FINAL
DIAMETER (in.)	2.856	2.863
LENGTH (in.)	1.976	1.983
WATER CONTENT (%)	22.0	23.2
DRY UNIT WEIGHT (pcf.)	106.0	105.1

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 8.1E-09

PERMEABILTY vs TIME



CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3442 COMPLETED: October 29, 1998

SAMPLE NUMBER: FC-2-5
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K58.1

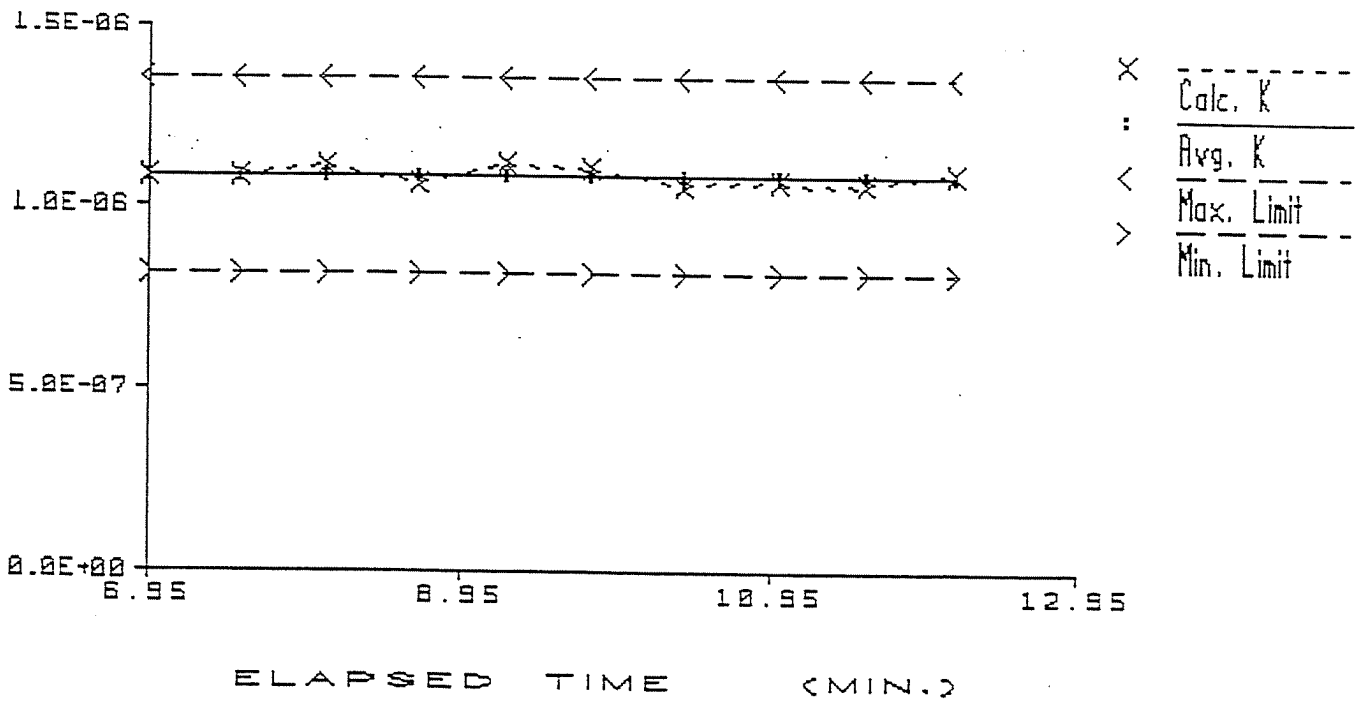
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.856	2.862
LENGTH (in.)	1.981	1.998
WATER CONTENT (%)	19.9	24.6
DRY UNIT WEIGHT (pcf.)	101.9	100.6

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.1E-06

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3372 COMPLETED: September 29, 1998

SAMPLE NUMBER: FC-3-1
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K25.1

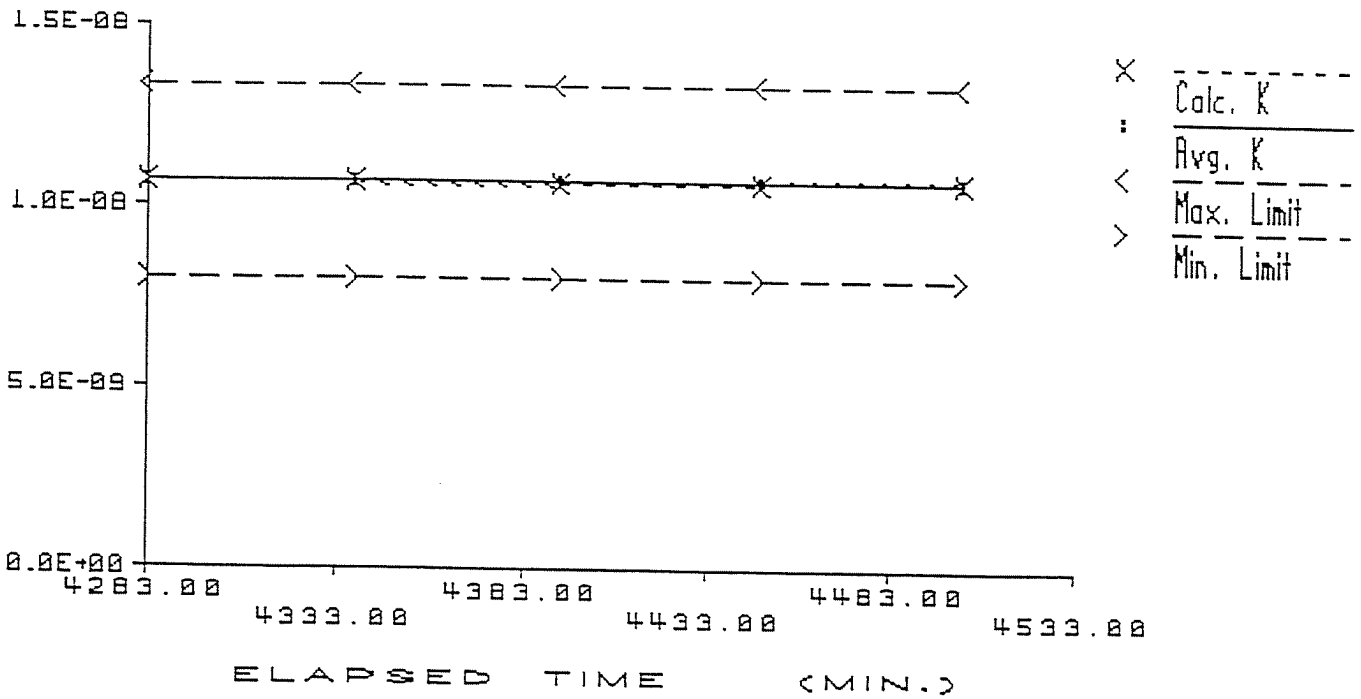
SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.854	2.868
LENGTH (in.)	1.982	1.992
WATER CONTENT (%)	22.6	24.2
DRY UNIT WEIGHT (pcf.)	105.1	103.5

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.1E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3372 COMPLETED: September 29, 1998

SAMPLE NUMBER: FC-3-2
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K27.1

SAMPLE DATA:

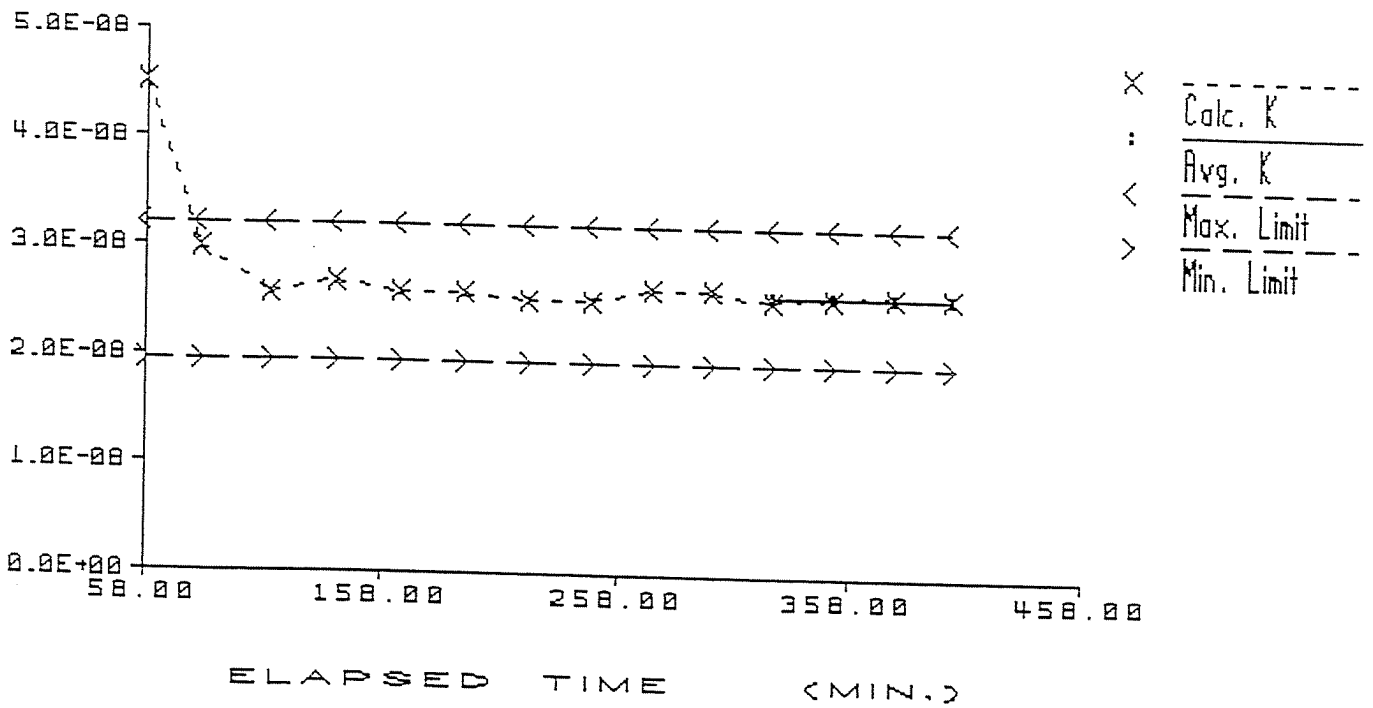
	INITIAL	FINAL
DIAMETER (in.)	2.849	2.874
LENGTH (in.)	1.983	2.008
WATER CONTENT (%)	20.5	24.1
DRY UNIT WEIGHT (pcf.)	106.3	103.1

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	28
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 2.6E-08

PERMEABILTY vs TIME



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3372 COMPLETED: September 29, 1998

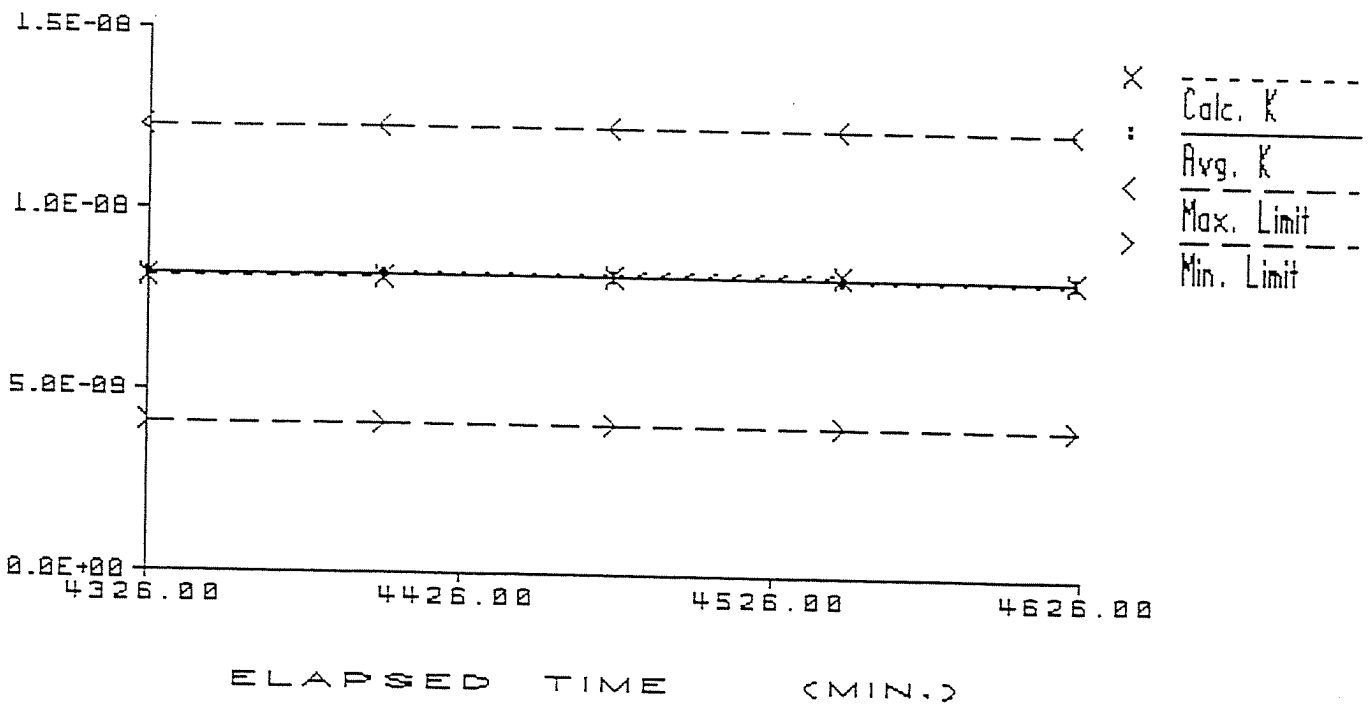
SAMPLE NUMBER: FC-3-3
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K29.1

SAMPLE DATA:	INITIAL	FINAL
DIAMETER (in.)	2.846	2.878
LENGTH (in.)	1.975	2.006
WATER CONTENT (%)	19.4	22.6
DRY UNIT WEIGHT (pcf.)	110.0	105.9

TEST PARAMETERS:	
TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 8.2E-09

PERMEABILTY vs TIME



CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3372 COMPLETED: September 29, 1998

SAMPLE NUMBER: FC-3-4
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K31.1

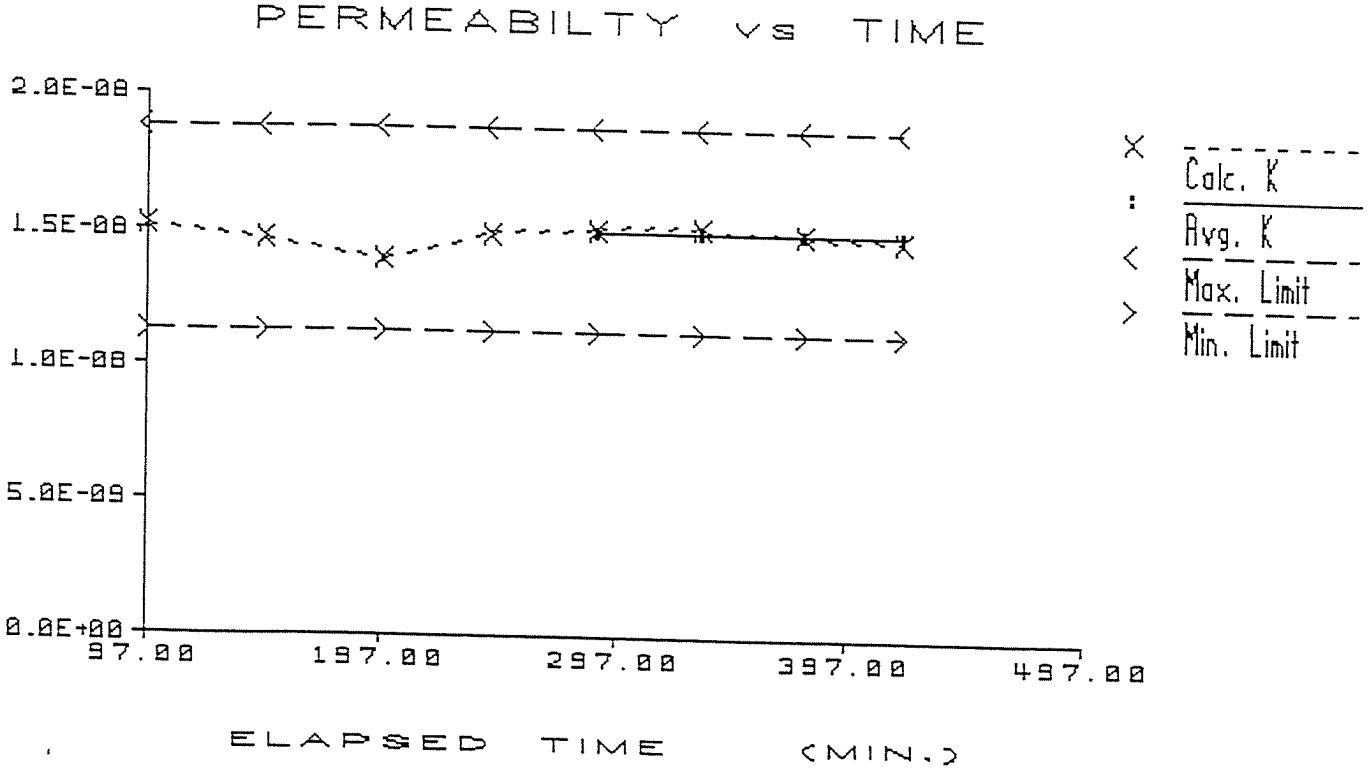
SAMPLE DATA:

	INITIAL	FINAL
DIAMETER (in.)	2.843	2.848
LENGTH (in.)	2.005	2.018
WATER CONTENT (%)	22.1	23.7
DRY UNIT WEIGHT (pcf.)	104.7	103.7

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	29
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.5E-08



GZA GeoEnvironmental of New York
Engineers and Scientists

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK

HYDRAULIC CONDUCTIVITY USING A FLEXIBLE WALL PERMEAMETER
ASTM D 5084 - 90

GZA FILE: 55252.00 GZA WORK ORDER NO. 3372 COMPLETED: October 2, 1998

SAMPLE NUMBER: FC-3-5
MATERIAL SOURCE: WALCK PIT CLAY - GRAND ISLAND, N.Y.
SAMPLE TYPE: SHELBY TUBE
TEST SERIES NO.: K33.1

SAMPLE DATA:

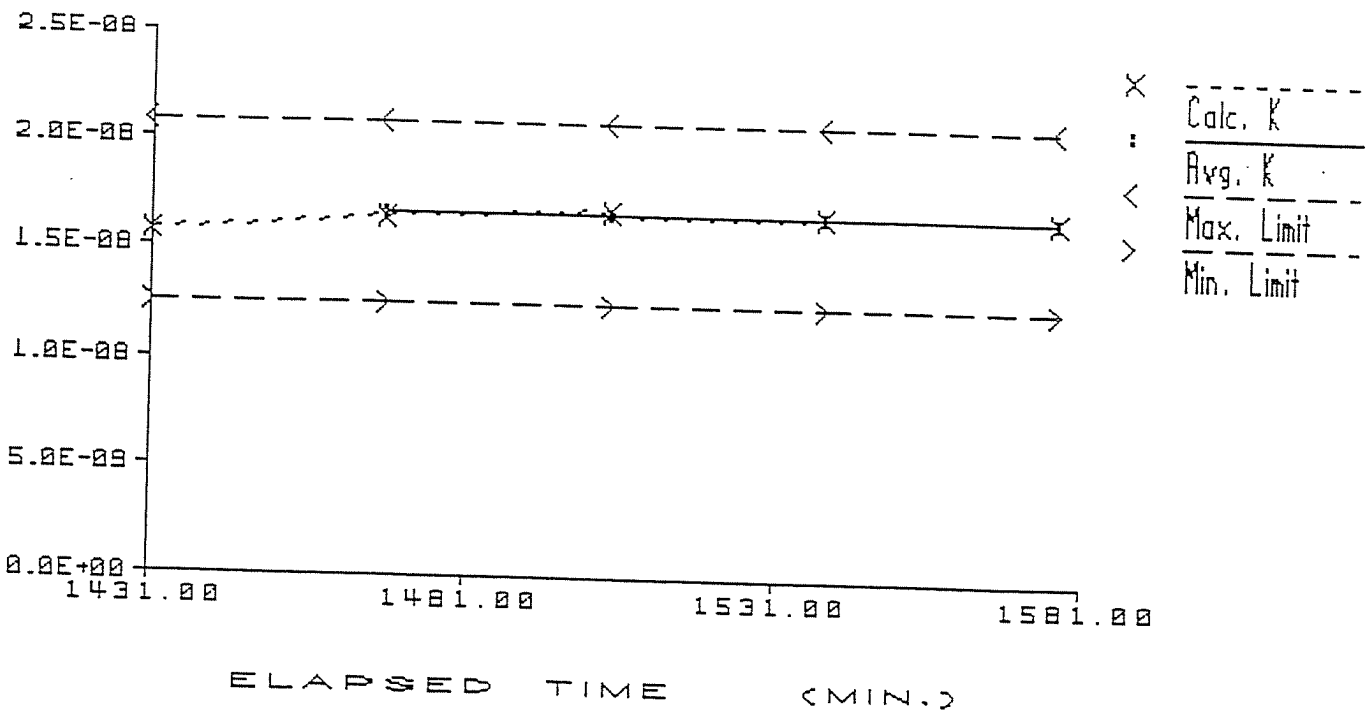
	INITIAL	FINAL
DIAMETER (in.)	2.849	2.887
LENGTH (in.)	2.009	2.044
WATER CONTENT (%)	19.2	23.1
DRY UNIT WEIGHT (pcf.)	109.9	105.2

TEST PARAMETERS:

TOTAL BACK PRESSURE (psi.)	80
MAXIMUM EFFECTIVE STRESS (psi.)	5
MINIMUM EFFECTIVE STRESS (psi.)	3
INITIAL HYDRAULIC GRADIENT	31
FINAL HYDRAULIC GRADIENT	30
PERMEANT LIQUID	DEAIRED TAP WATER

AVERAGE HYDRAULIC CONDUCTIVITY (cm./sec.) 1.7E-08

PERMEABILTY vs TIME



APPENDIX D

SHELBY TUBE SAMPLE LOCATIONS

GZA GeoEnvironmental of New York
Engineers and Scientists

Page No.

Project SKW METALS & ALLOYS INC. File No. 55252
Location NIAGARA FALLS, NEW YORK Date 11/19/98 By J. DANZER
Subject CUT-OFF WALL & FINAL COVER Checked By
Based on Revised By

SHELBY TUBE SAMPLE LOCATIONS (SHEET 1 OF 2)

SHELBY TUBE SAMPLE NO.	LOCATION	DEPTH OF LIFT NO.
CW-B-1	CUT-OFF WALL "B"; 40' W OF FENCE	3.7'
FC-1-1	FINAL COVER; @ 1.5' ESE OF STAKE 417B	1ST LIFT
FC-1-2	FINAL COVER; @ STAKE 474	1ST LIFT
FC-1-3	FINAL COVER; @ STAKE 492	1ST LIFT
FC-1-4	FINAL COVER; @ 1' ESE OF STAKE 417A	1ST LIFT
FC-1-5	FINAL COVER; AT STAKE 447	1ST LIFT
CW-B-2	CUT-OFF WALL "B"; 100' W OF FENCE	FINISH GRADE
CW-B-3	CUT-OFF WALL "B"; 120' W OF FENCE	4.0'
CW-B-4	CUT-OFF WALL "B"; @ 60'S OF STAKE 396	3.5'
CW-B-5	CUT-OFF WALL "B"; @ 40'N OF STAKE 350	5.5'
CW-B-6	CUT-OFF WALL "B"; @ 10'E OF STAKE 350	FINISH GRADE
CW-B-7**	CUT-OFF WALL "B"; @ 55'S OF STAKE 396	2.5'
CW-B-8	CUT-OFF WALL "B"; @ 55'S OF STAKE 376	1.5'
FC-2-1	FINAL COVER; @ 25'E OF STAKE 487	2ND LIFT
FC-2-2	FINAL COVER; @ 25'E OF STAKE 349	2ND LIFT
FC-2-3	FINAL COVER; @ 25'N OF STAKE 438	2ND LIFT
FC-2-4	FINAL COVER; @ 25'E OF STAKE 391	2ND LIFT
FC-3-1	FINAL COVER; @ 20'N OF STAKE 470	3RD LIFT
FC-3-2	FINAL COVER; @ 20'N OF STAKE 390	3RD LIFT
FC-3-3	FINAL COVER; @ 5'N OF STAKE 415	3RD LIFT
FC-3-4	FINAL COVER; @ 5'N OF STAKE 473	3RD LIFT
FC-3-5	FINAL COVER; @ 5'E OF STEKE 451	3RD LIFT
CW-A-1	CUT-OFF WALL "A"; @ 25'S OF STAKE 605	3.5'
CW-A-2	CUT-OFF WALL "A"; @ 25'S OF STAKE 605	FINISH GRADE
CW-A-3	CUT-OFF WALL "A"; @ 37'S OF STAKE 444	FINISH GRADE
CW-A-4	CUT-OFF WALL "A"; @ 20'S OF STAKE 302	1.0'
CW-A-5	CUT-OFF WALL "A"; @ 20'S OF STAKE 302	2.0'
CW-A-6	CUT-OFF WALL "A"; @ 20'S OF STAKE 302	4.0'
CW-A-7	CUT-OFF WALL "A"; @ 45'S, 35'E OF STAKE 435	4.0'
CW-A-8	CUT-OFF WALL "A"; @ 25'S, 35'E OF STAKE 435	2.0'
CW-A-9	CUT-OFF WALL "A"; @ 25'S, 35'E OF STAKE 435	FINISH GRADE
CW-A-10	CUT-OFF WALL "A"; @ 70'S, 20'W OF STAKE 412	5.0'
CW-A-11	CUT-OFF WALL "A"; @ 70'S, 20'W OF STAKE 412	3.0'
CW-A-12	CUT-OFF WALL "A"; @ 70'S, 20'W OF STAKE 412	FINISH GRADE
CW-B-7A (RETEST)**	CUT-OFF WALL "B"; @ 50'S OF STAKE 396	4.0'

**- SHELBY TUBE SAMPLE WITH FAILING PERMEABILITY RESULTS

APPENDIX E

SHELBY TUBE SAMPLE DENSITY AND MOISTURE CONTENT DATA

GZA GeoEnvironmental of New York
Engineers and Scientists

Page No.

Project SKW METALS & ALLOYS, INC. File No. 55252
Location NIAGARA FALLS, N.Y. Date 11/19/98 By J. DANZER
Subject CUT-OFF WALL & FINAL COVER Checked By
Based on Revised By

SHELBY TUBE SAMPLE LOCATIONS (SHEET 2 OF 2)

SHELBY TUBE SAMPLE NO.	LOCATION	DEPTH OR LIFT NO.
CW-B-7D (RETEST)	CUT-OFF WALL "B": 0'S 50'S OF STAKE 376	3.5'
CW-A-12A (RETEST)	CUT-OFF WALL "A": 0'S 20' W OF STAKE 411	FINISH GRADE
CW-A-13	CUT-OFF WALL "A": 0'S 15' W OF STAKE 366	4.5'
CW-A-14	CUT-OFF WALL "A": 0'S 20' W OF STAKE 366	6.5'
CW-A-15	CUT-OFF WALL "A": 0'S 25' W OF STAKE 366	2.0'
CW-A-16	CUT-OFF WALL "A": 0'S 25' E OF STAKE 410	3.35'
CW-A-17	CUT-OFF WALL "A": 0'S 25' E OF STAKE 410	1.5'
CW-A-18	CUT-OFF WALL "A": 0'S 35' E OF STAKE 410	4.0'
FC-2-5	FINAL COVER: 0'S 25' E OF STAKE 454	2ND LIFT
CW-B-9	CUT-OFF WALL "B": 0'S 81' S OF STAKE 376	3.5'
CW-B-10	CUT-OFF WALL "B": 0'S 19' S OF STAKE 376	3.0'

** SHELBY TUBE SAMPLE WITH FAILING PERMEABILITY TEST RESULTS

GZA GeoEnvironmental of New York
Engineers and Scientists

Page No.

Project SKW METALS & ALLOYS, INC. File No. 55252
Location NIAGARA FALLS NEW YORK Date 11/19/98 By J. DANZER
Subject CUT-OFF WALL & FINAL COVER Checked By
Based on Revised By

SHELBY TUBE SAMPLE DENSITY & MOISTURE CONTENT DATA (SHEET 1 OF 2)

SAMPLE NO.	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PROCTOR DENSITY *
CW-B-1	22.7	104.6	98.2%
FC-1-1	21.9	106.0	99.5%
FC-1-2	20.2	110.0	100+%
FC-1-3	21.7	107.7	100+%
FC-1-4	20.7	105.7	99.2%
FC-1-5	26.0	100.1	94.0%
CW-B-2	21.8	104.5	98.1%
CW-B-3	22.0	105.1	98.7%
CW-B-4	22.7	100.5	94.4%
CW-B-5	24.2	102.3	96.1%
CW-B-6	24.2	102.0	95.8%
CW-B-7 **	23.4	98.5	92.5%
CW-B-8	21.4	104.7	98.3%
FC-2-1	22.8	102.2	96.0%
FC-2-2	19.5	105.8	99.3%
FC-2-3	22.1	105.3	98.9%
FC-2-4	22.0	106.0	99.5%
FC-3-1	27.6	105.1	98.7%
FC-3-2	20.5	106.3	99.8%
FC-3-3	19.4	110.0	100+%
FC-3-4	22.1	104.7	98.3%
FC-3-5	19.2	109.9	100+%
CW-A-1	21.3	105.8	99.3%
CW-A-2	22.2	104.9	98.5%
CW-A-3	21.0	106.9	100+%
CW-A-4	21.7	103.6	97.3%
CW-A-5	21.6	106.1	99.6%
CW-A-6	23.4	101.6	95.4%
CW-A-7	25.6	99.6	93.5%
CW-A-8	22.8	103.2	96.9%
CW-A-9	23.1	104.4	98.0%
CW-A-10	20.8	104.2	97.8%
CW-A-11	21.2	101.3	95.1%
CW-A-12 **	21.1	103.4	97.1%
CW-B-7A (RESAMP) **	21.7	104.8	98.4%

** - SHELBY TUBE SAMPLE WITH FAILING PERMEABILITY RESULTS
* PROCTOR DENSITY = 106.5 PCF @ 22% (w) - WALK PIT CUT

GZA GeoEnvironmental of New York
Engineers and Scientists

Page No.

Project SKW METALS & ALLOYS, INC. File No. 55252
Location NIAGARA FALLS, NEW YORK Date 11/19/98 By J. DANZER
Subject CUT-OFF WALL & FINAL COVER Checked By
Based on Revised By

SHELBY TUBE SAMPLE DENSITY & MOISTURE CONTENT DATA (SHEET 2 OF 2)

SAMPLE No.	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	PERCENT PROCTOR DENSITY *
CW-B-7D (RETEST)	23.4	103.9	97.6%
CW-A-12A (RETEST)	23.0	105.6	99.2%
CW-A-13	21.0	109.4	100+%
CW-A-14	20.7	104.4	98.0%
CW-A-15	21.6	106.6	100+%
CW-A-16	22.6	105.3	98.9%
CW-A-17	22.4	105.9	99.4%
CW-A-18	20.6	101.2	95.0%
FC-2-5	19.9	101.9	95.6%
CW-B-9	24.5	100.3	94.2%
CW-B-10	22.7	106.3	99.8%

** SHELBY TUBE SAMPLE WITH FAILING PERMEABILITY TEST RESULTS
* PROCTOR DENSITY = 106.5 PCF @ 22% OPT (D) - WALCK PIT CLAY

APPENDIX F

SHELBY TUBE SAMPLE
LIFT INTERFACE OBSERVATIONS

November 20, 1998
File No. 55252

SKW METALS AND ALLOYS, INC.
NIAGARA FALLS, NEW YORK
FINAL COVER SYSTEM CONSTRUCTION

SHELBY TUBE SAMPLE
LIFT INTERFACE OBSERVATIONS

Shelby Tube FC-2-1A (1st & 2nd Lift Interface)

- Recovered 11.5"
- Distinct lift interface (plane) visable at 9.5" from top of sample.
- Dryer material noted at interface.
- Minor irregularities (i.e. minimal voids/clods) noted in upper and lower lifts.
- Both upper and lower lifts appear to be fairly well compacted.

Shelby Tube FC-2-2A (1st & 2nd Lift Interface)

- Recovered 11.0'
- Interface appears to be 4" from top of sample.
- No distinct interface plane visable.
- Minor irregularities (i.e. minimal voids/clods) noted in upper and lower lifts.
- Both upper and lower lifts appear to be fairly well compacted.

Shelby Tube FC-2-3A (1st & 2nd Lift Interface)

- Recovered 9.5"
- No definable interface apparent.
- Some minor irregularities (i.e. minimal voids/clods) noted in upper zone of sample.
- Little to no irregularities noted in lower zone of sample.
- Upper and lower zones of sample appear to be fairly well compacted.

Shelby Tube FC-2-4A (1st & 2nd Lift Interface)

- Recovered 11.5"
- No definable interface apparent.
- No irregularities noted.
- Both upper and lower zones of sample are real moist and appear to be well compacted.

Shelby Tube FC-3-1A (2nd & 3rd Lift Interface)

- Recovered 13.5"
- No distinct interface (plane) noted.
- Presumed interface appears to be at about 6" from top of sample based on irregularities.

- Upper lift contains some minor irregularities (i.e. visable voids/clods) are appears to have been fairly well compacted.
- Lower lift contains little to no irregularities and appears to be well compacted.
- Lower lift appears more moist.

Shelby Tube FC-3-2A (2^{nd} & 3^{rd} Lift Interface)

- Recovered 10.5"
- No distinct interface plans noted.
- Interface presumed at 3.5" form top of sample based on sample conditions observed.
- Upper portion of sample contains some what more dryer and friable clay soil and appears to be poorly compacted.
- Lower portion of sample is more moist, contains few irregularities and appears to be well compacted.

Shelby Tube FC-3-4A (2^{nd} & 3^{rd} Lift Interface)

- Recovered 12.0"
- No distinct interface plane noted.
- Interface presumed at 5" from top of sample base on sample conditions observed.
- Sample contains somewhat dryer and friable clay soil at presumed interface.
- Upper and lower portions of sample are more moist and appear to be fairly well compacted.

Shelby Tube FC-3-5A (2^{nd} & 3^{rd} Lift Interface)

- Recovered 11.0"
- No distinct interface plane noted.
- Interface presumed at 6" from top of sample based on sample conditions observed.
- Sample contains some minor irregularities (i.e. voids/clods) at presumed interface.
- Remaining upper and lower portions of sample contain no irregularities and appear to be well compacted.

APPENDIX G

TOPSOIL BORROW SOURCE LABORATORY TEST DATA

GEOTECHNICAL LABORATORY TEST PROCEDURES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK
File No. 55252.00
September 10, 1998

1. The following tests were conducted in general accordance with the noted ASTM test method:

DESIGNATION	TEST METHOD
ASTM D 422-63	Particle-Size Analysis of Soils (Sieve only)
ASTM D 2216-92	Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D 2488-93	Description and Identification of Soils (Visual-Manual Procedure) (see Item 2)
ASTM D 2974-87	Moisture, Ash, and Organic Matter of Peat and Other Organic Soils (see Item 3)
ASTM D 4972-89	pH of Soils (see Item 4)

2. Soil descriptions are based upon particle-size analysis results and a representative portion of the sample used to estimate the plasticity index.

3. Muffle furnace temperature set at 440°C to determine ash and organic content.

4. pH measurements were made on material passing the No. 10 sieve with a potentiometer using a pH sensitive electrode system (method A).

5. The test results are presented on the sheets entitled "Geotechnical Laboratory Testing Data Summary" and "Particle-Size Analysis" which follow.

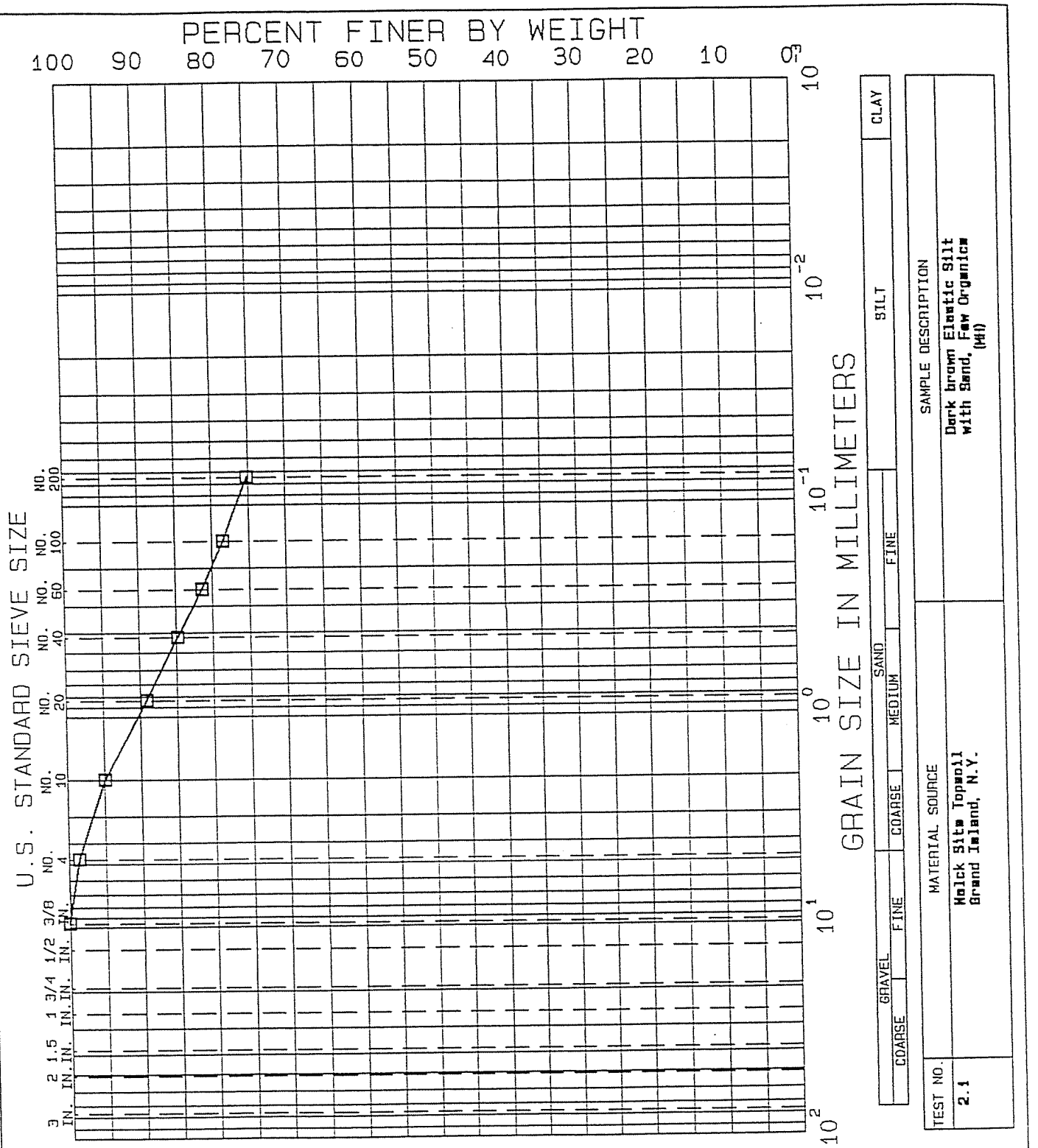
GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

PROJECT NAME: CUT-OFF WALL AND FINAL COVER CONSTRUCTION
LOCATION: TOWN OF NIAGARA, NY
PROJECT NO. 55252.00
CLIENT: SKW METALS & ALLOYS, INC.
MATERIAL SOURCE: WALCK SITE TOPSOIL - GRAND ISLAND, NY
DATE REPORTED: 9/10/98
WORK ORDER NO. 3335

IDENTIFICATION			WATER CONTENT	ATTERBERG LIMITS			ASH and ORGANIC CONTENT		GRAIN SIZE ANALYSIS		pH OF SOIL		PERMEABILITY TEST					LABORATORY LOG AND SOIL DESCRIPTION
SAMPLE TYPE	SAMPLE NUMBER	DEPTH ft.	%	LL %	PL %	PI	ORGANIC %	ASH %	SIEVE -200 %	HYD. -2μ %	pH in H_2O	pH in 0.01M $CaCl_2$	PERME-ABILITY cm/sec.	TYPE OF TEST	$\bar{\sigma}_c$ psf	DRY UNIT WT pcf	WATER CONTENT %	
BULK SAMPLE	08198-1		31.2				10.7	89.3	75		5.3	4.9						Dark brown Elastic Silt with Sand, Few Organics (MH)
BULK SAMPLE	08198-2		25.7				9.9	90.1	87		5.3	4.8						Dark brown Elastic Silt, Few Organics (MH)

Notes: 1) See Legend for Geotechnical Laboratory Testing Data Summary.

2) See Geotechnical Laboratory Test Procedures for specific test procedures completed.



CUT-OFF WALL AND FINAL COVER CONSTRUCTION - TOWN OF NIAGARA, NY

PARTICLE-SIZE ANALYSIS

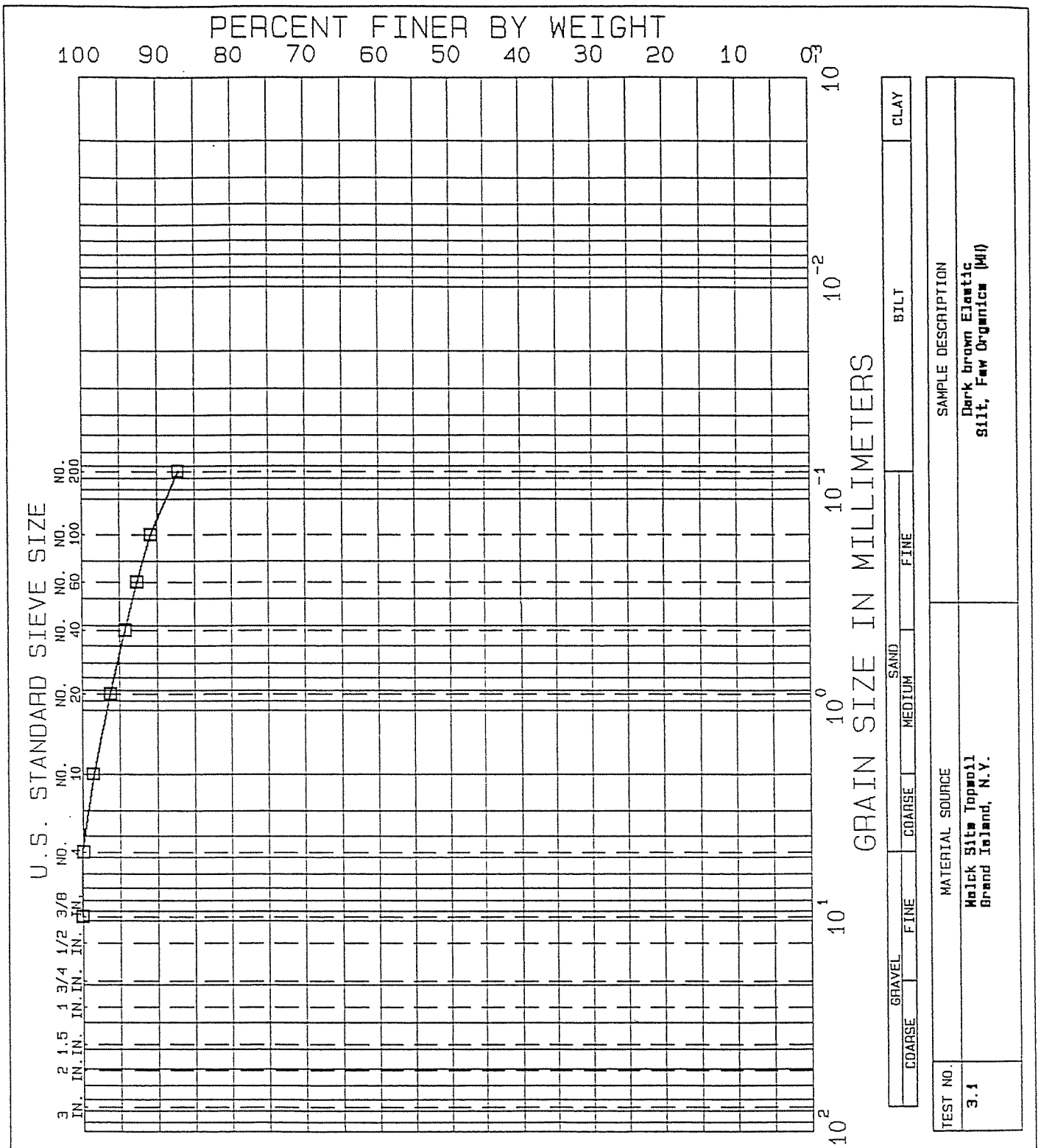
EXPLOR. NO. BULK SAMPLE
SAMPLE NO. 080198-1
DEPTH
TECH. HAK
REVIEWER RAR

WORK ORDER NO. 3335
DATE 9/1/98

FILE 55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 10 1998



CUT-OFF WALL AND FINAL COVER
CONSTRUCTION - TOWN OF NIAGARA, NY
PARTICLE-SIZE ANALYSIS

EXPLOR. NO. BULK SAMPLE
SAMPLE NO. 080198-2
DEPTH
TECH. HAK
REVIEWER RAR

WORK ORDER NO. 3335
DATE 9/1/98

FILE 55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 10 1998

LEGEND FOR GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

WATER CONTENT (ASTM D 2216)

%	=	WATER CONTENT OF AS RECEIVED SAMPLE IN PERCENT

ATTERBERG LIMITS (ASTM D 4318)

LL %	=	LIQUID LIMIT IN PERCENT
PL %	=	PLASTIC LIMIT IN PERCENT
PI	=	PLASTICITY INDEX

ASH, ORGANIC CONTENT (ASTM D 2974)

ORGANIC %	=	ORGANIC CONTENT IN PERCENT
ASH %	=	ASH CONTENT IN PERCENT

GRAIN SIZE ANALYSIS (ASTM D 422)

SIEVE -200 %	=	PERCENT FINES, MATERIAL FINER THAN NO. 200 SIEVE (0.74 MM)
HYD. -2μ %	=	PERCENT FINER THAN 2 MICRONS

pH OF SOILS (ASTM D 4972)

pH in H_2O	=	ACIDITY OR ALKALINITY
pH in 0.01M $CaCl_2$	=	ACIDITY OR ALKALINITY

PERMEABILITY TEST (ASTM D 5084)

PERMEABILITY cm/sec.		=	PERMEABILITY MEASURED IN CENTIMETERS PER SECOND
TYPE OF TEST	Kr	=	RECONSTITUTED (REMOLDED) SAMPLE
	K	=	UNDISTURBED SAMPLE
$\overline{\sigma}_c$ psf		=	EFFECTIVE CONFINING PRESSURE DURING PERMEABILITY TEST IN POUNDS PER SQUARE FOOT
DRY UNIT WT. pcf		=	INITIAL DRY DENSITY OF TEST SAMPLE IN POUNDS PER CUBIC FOOT
WATER CONTENT %		=	INITIAL WATER CONTENT OF TEST SAMPLE IN PERCENT

SEP 10 1998

GEOTECHNICAL LABORATORY TEST PROCEDURES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK
File No.55252.00
September 15, 1998

1. The following tests were conducted in general accordance with the noted ASTM test method:

DESIGNATION	TEST METHOD
ASTM D 422-63	Particle-Size Analysis of Soils (Sieve only)
ASTM D 2216-92	Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D 2488-93	Description and Identification of Soils (Visual-Manual Procedure) (see Item 2)
ASTM D 2974-87	Moisture, Ash, and Organic Matter of Peat and Other Organic Soils (see Item 3)
ASTM D 4972-89	pH of Soils (see Item 4)

2. Soil descriptions are based upon particle-size analysis results and a representative portion of the sample used to estimate the plasticity index.

3. Muffle furnace temperature set at 440°C to determine ash and organic content.

4. pH measurements were made on material passing the No. 10 sieve with a potentiometer using a pH sensitive electrode system (method A).

5. The test results are presented on the sheets entitled "Geotechnical Laboratory Testing Data Summary" and "Particle-Size Analysis" which follow.

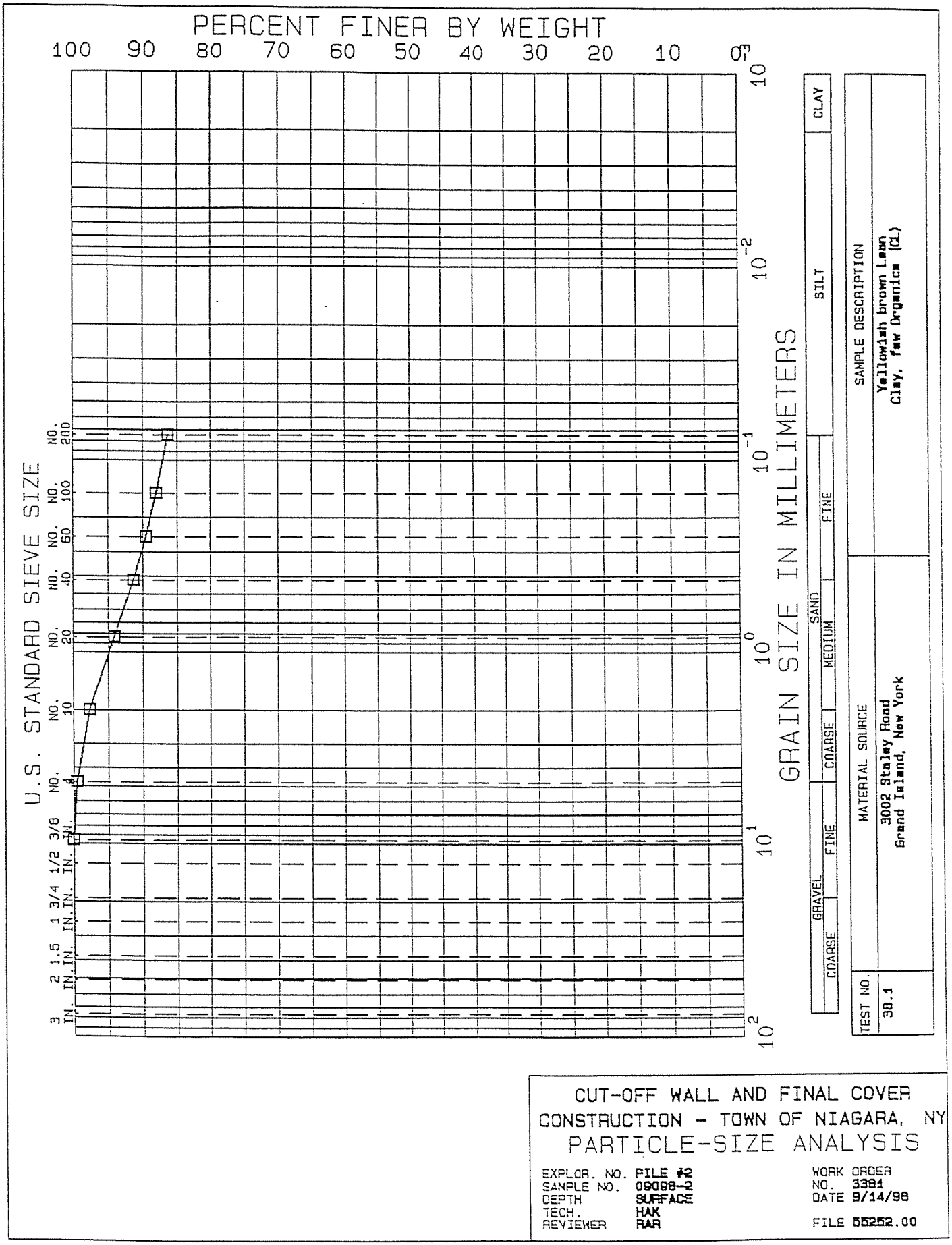
GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

PROJECT NAME: CUT-OFF WALL AND FINAL COVER CONSTRUCTION
LOCATION: TOWN OF NIAGARA, NY
PROJECT NO. 55252.00
CLIENT: SKW METALS & ALLOYS, INC.
MATERIAL SOURCE: 3002 STALEY ROAD - GRAND ISLAND, NY
DATE REPORTED: 9/15/98
WORK ORDER NO. 3381

IDENTIFICATION			WATER CONTENT	ATTERBERG LIMITS			ASH and ORGANIC CONTENT		GRAIN SIZE ANALYSIS		pH OF SOIL		PERMEABILITY TEST					LABORATORY LOG AND SOIL DESCRIPTION
EXPLOR. NO.	SAMPLE NUMBER	DEPTH ft.	%	LL %	PL %	PI	ORGANIC %	ASH %	SIEVE -200 %	HYD. -2μ %	pH in H_2O	pH in 0.01M $CaCl_2$	PERME-ABILITY cm/sec.	TYPE OF TEST	$\bar{\sigma}_c$ psf	DRY UNIT WT pcf	WATER CONTENT %	
PILE #1	09098-1	Sur-face	25.7				8.7	91.3	93		5.0	2.8						Dark brown Lean Clay, few Organics (CL)
PILE #2	09098-2	Sur-face	26.7				9.0	91.0	86		4.1	2.5						Yellowish brown Lean Clay, few Organics (CL)

Notes: 1) See Legend for Geotechnical Laboratory Testing Data Summary.

2) See Geotechnical Laboratory Test Procedures for specific test procedures completed.



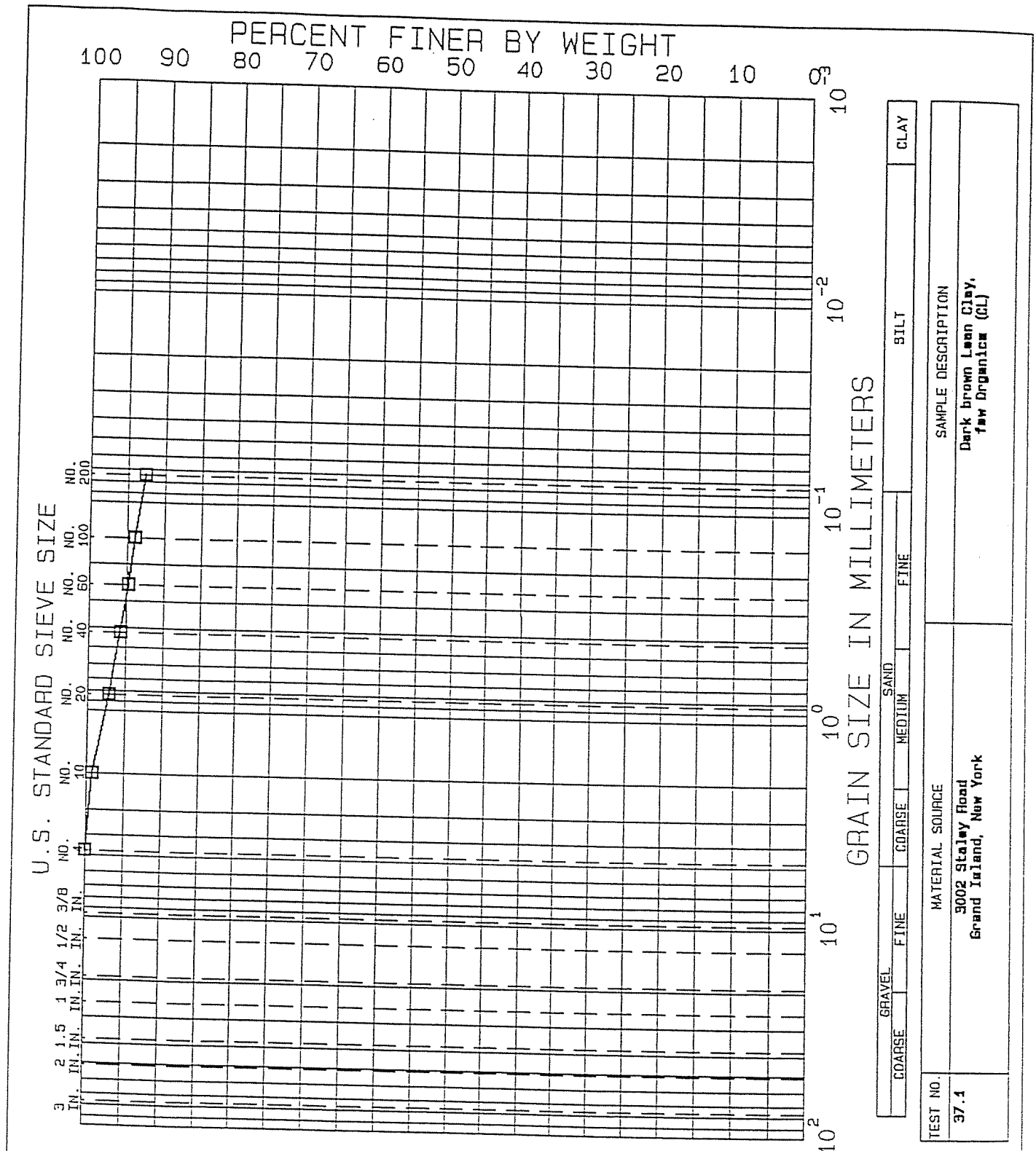
CUT-OFF WALL AND FINAL COVER CONSTRUCTION - TOWN OF NIAGARA, NY

PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	PILE #2	WORK ORDER NO.	3381
SAMPLE NO.	09098-2	DATE	9/14/98
DEPTH	SURFACE		
TECH.	HAK		
REVIEWER	RAR	FILE	55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 15 1998



CUT-OFF WALL AND FINAL COVER
CONSTRUCTION - TOWN OF NIAGARA, NY

PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	PILE #1	WORK ORDER NO.	3381
SAMPLE NO.	09098-1	DATE	9/14/98
DEPTH	SURFACE		
TECH.	HAK		
REVIEWER	RAR	FILE	55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 15 1998

LEGEND FOR GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

WATER CONTENT (ASTM D 2216)

%	=	WATER CONTENT OF AS RECEIVED SAMPLE IN PERCENT

ATTERBERG LIMITS (ASTM D 4318)

LL %	=	LIQUID LIMIT IN PERCENT
PL %	=	PLASTIC LIMIT IN PERCENT
PI	=	PLASTICITY INDEX

ASH, ORGANIC CONTENT (ASTM D 2974)

ORGANIC %	=	ORGANIC CONTENT IN PERCENT
ASH %	=	ASH CONTENT IN PERCENT

GRAIN SIZE ANALYSIS (ASTM D 422)

SIEVE -200 %	=	PERCENT FINES, MATERIAL FINER THAN NO. 200 SIEVE (0.74 MM)
HYD. -2μ %	=	PERCENT FINER THAN 2 MICRONS

pH OF SOILS (ASTM D 4972)

pH in H_2O	=	ACIDITY OR ALKALINITY
pH in 0.01M $CaCl_2$	=	ACIDITY OR ALKALINITY

PERMEABILITY TEST (ASTM D 5084)

PERMEABILITY cm/sec.		=	PERMEABILITY MEASURED IN CENTIMETERS PER SECOND
TYPE OF TEST	Kr	=	RECONSTITUTED (REMOLDED) SAMPLE
	K	=	UNDISTURBED SAMPLE
$\overline{\sigma}_c$ psf		=	EFFECTIVE CONFINING PRESSURE DURING PERMEABILITY TEST IN POUNDS PER SQUARE FOOT
DRY UNIT WT. pcf		=	INITIAL DRY DENSITY OF TEST SAMPLE IN POUNDS PER CUBIC FOOT
WATER CONTENT %		=	INITIAL WATER CONTENT OF TEST SAMPLE IN PERCENT

GEOTECHNICAL LABORATORY TEST PROCEDURES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK
File No. 55252.00
September 28, 1998

1. The following tests were conducted in general accordance with the noted ASTM test method:

DESIGNATION	TEST METHOD
ASTM D 422-63	Particle-Size Analysis of Soils (Sieve only)
ASTM D 2488-93	Description and Identification of Soils (Visual-Manual Procedure) (see Item 2)
ASTM D 2974-87	Moisture, Ash, and Organic Matter of Peat and Other Organic Soils (see Item 3)
ASTM D 4972-89	pH of Soils (see Item 4)

2. Soil descriptions are based upon particle-size analysis results and a representative portion of the sample used to estimate the plasticity index.

3. Muffle furnace temperature set at 440°C to determine ash and organic content.

4. pH measurements were made on material passing the No. 10 sieve with a potentiometer using a pH sensitive electrode system (method A).

5. The test results are presented on the sheets entitled "Geotechnical Laboratory Testing Data Summary" and "Particle-Size Analysis" which follow.

GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

PROJECT NAME: CUT-OFF WALL AND FINAL COVER CONSTRUCTION
LOCATION: TOWN OF NIAGARA, NY
PROJECT NO. 55252.00
CLIENT: SKW METALS & ALLOYS, INC.
MATERIAL SOURCE: EAST RIVER ROAD - GRAND ISLAND, NY
DATE REPORTED: 9/28/98
WORK ORDER NO. 3400

IDENTIFICATION			WATER CONTENT	ATTERBERG LIMITS			ASH and ORGANIC CONTENT		GRAIN SIZE ANALYSIS		pH OF SOIL		PERMEABILITY TEST					LABORATORY LOG AND SOIL DESCRIPTION
SAMPLE TYPE	SAMPLE NUMBER	DEPTH ft.	%	LL %	PL %	PI	ORGANIC %	ASH %	SIEVE -200 %	HYD. -2μ %	pH in H_2O	pH in 0.01M $CaCl_2$	PERME-ABILITY cm/sec.	TYPE OF TEST	$\bar{\sigma}_c$ psf	DRY UNIT WT pcf	WATER CONTENT %	
BULK	09228-1						4.4	95.6	67		6.9	6.4						Brown Sandy Silty Clay, trace Organics (CL-ML)
BULK	09228-2						5.1	94.9	79		6.5	6.0						Brown Silty Clay with Sand, trace Organics (CL-ML)
BULK	09228-3						3.1	96.9	40		7.1	6.0						Brown Silty Clayey Sand, trace Organcis (SC-SM)

Notes: 1) See Legend for Geotechnical Laboratory Testing Data Summary.

2) See Geotechnical Laboratory Test Procedures for specific test procedures completed.

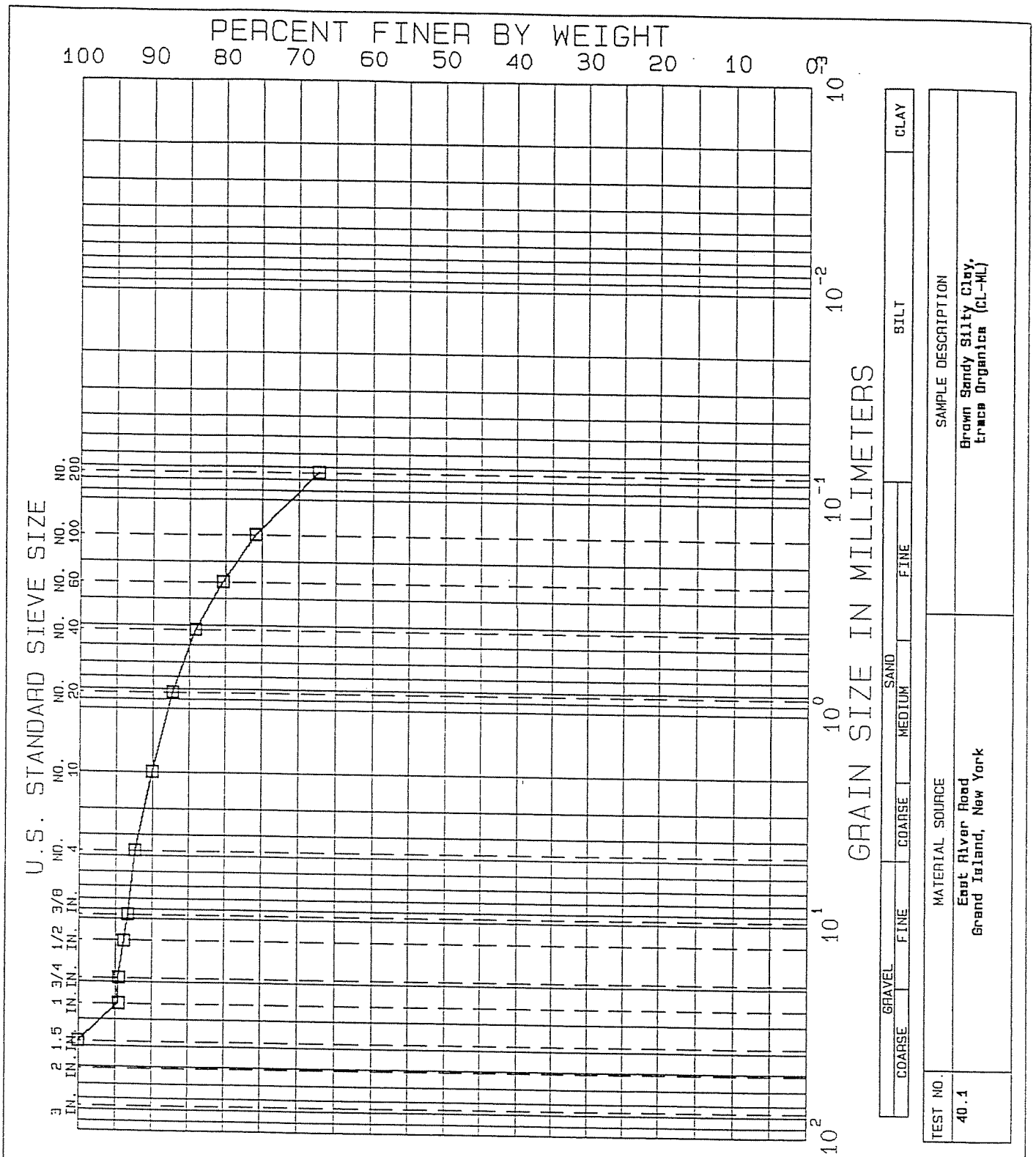
GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

PROJECT NAME: CUT-OFF WALL AND FINAL COVER CONSTRUCTION
LOCATION: TOWN OF NIAGARA, NY
PROJECT NO. 55252.00
CLIENT: SKW METALS & ALLOYS, INC.
MATERIAL SOURCE: EAST RIVER ROAD - GRAND ISLAND, NY
DATE REPORTED: 9/28/98
WORK ORDER NO. 3400

IDENTIFICATION			WATER CONTENT	ATTERBERG LIMITS			ASH and ORGANIC CONTENT		GRAIN SIZE ANALYSIS		pH OF SOIL		PERMEABILITY TEST					LABORATORY LOG AND SOIL DESCRIPTION
SAMPLE TYPE	SAMPLE NUMBER	DEPTH ft.	%	LL %	PL %	PI	ORGANIC %	ASH %	SIEVE -200 %	HYD. -2μ %	pH in H_2O	pH in 0.01M $CaCl_2$	PERME-ABILITY cm/sec.	TYPE OF TEST	$\bar{\sigma}_c$ psf	DRY UNIT WT pcf	WATER CONTENT %	
BULK	09228-1						4.4	95.6	67		6.9	6.4						Brown Sandy Silty Clay, trace Organics (CL-ML)
BULK	09228-2						5.1	94.9	79		6.5	6.0						Brown Silty Clay with Sand, trace Organics (CL-ML)
BULK	09228-3						3.1	96.9	40		7.1	6.0						Brown Silty Clayey Sand, trace Organcis (SC-SM)

Notes: 1) See Legend for Geotechnical Laboratory Testing Data Summary.

2) See Geotechnical Laboratory Test Procedures for specific test procedures completed.



CUT-OFF WALL AND FINAL COVER
CONSTRUCTION - TOWN OF NIAGARA, NY

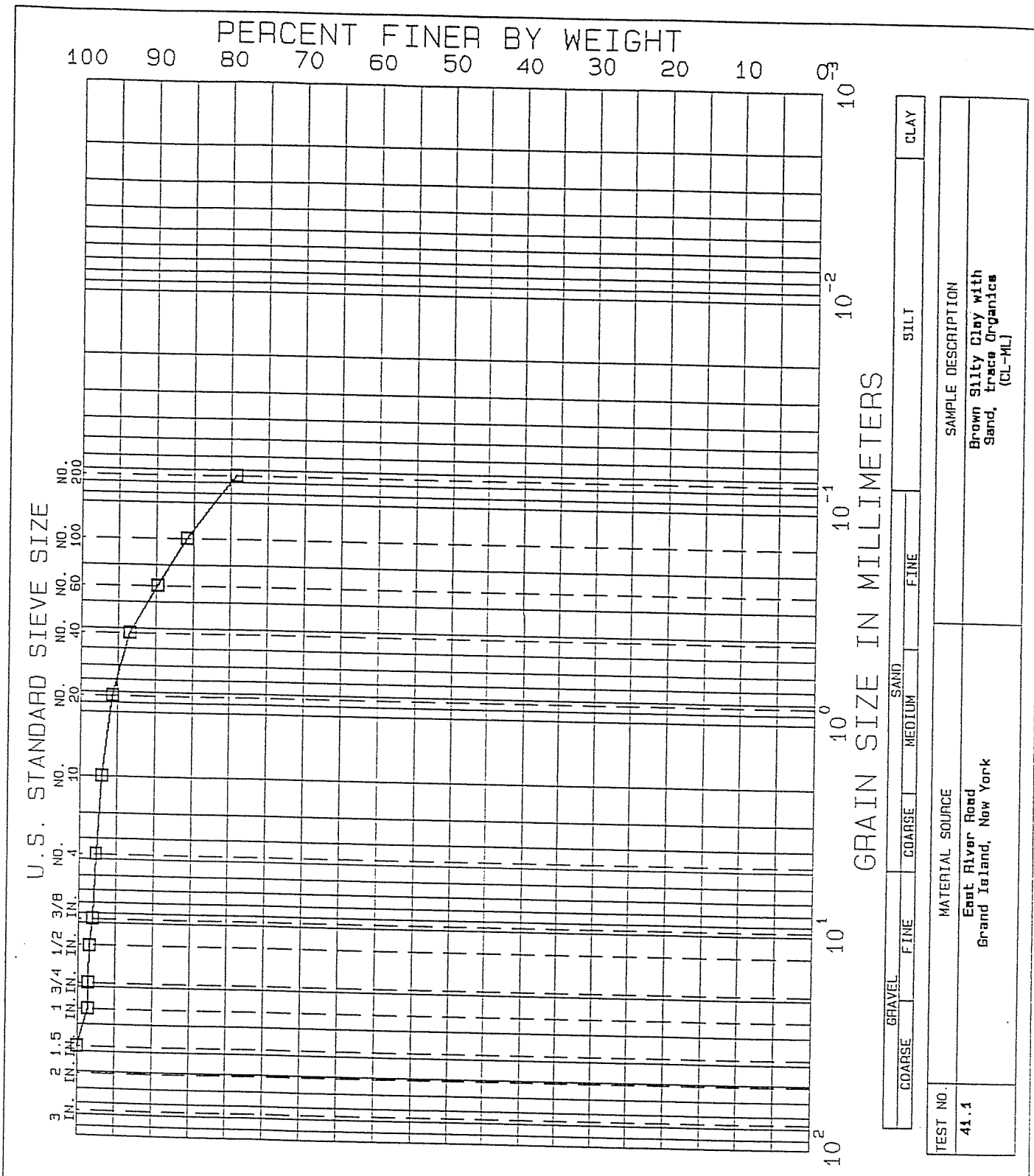
PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	BULK SAMPLE
SAMPLE NO.	09228-1
DEPTH	STOCKPILE 1
TECH.	HAK/DJB
REVIEWER	RAR

WORK ORDER NO. 3400
DATE 9/27/98
FILE 55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 2 8 1998



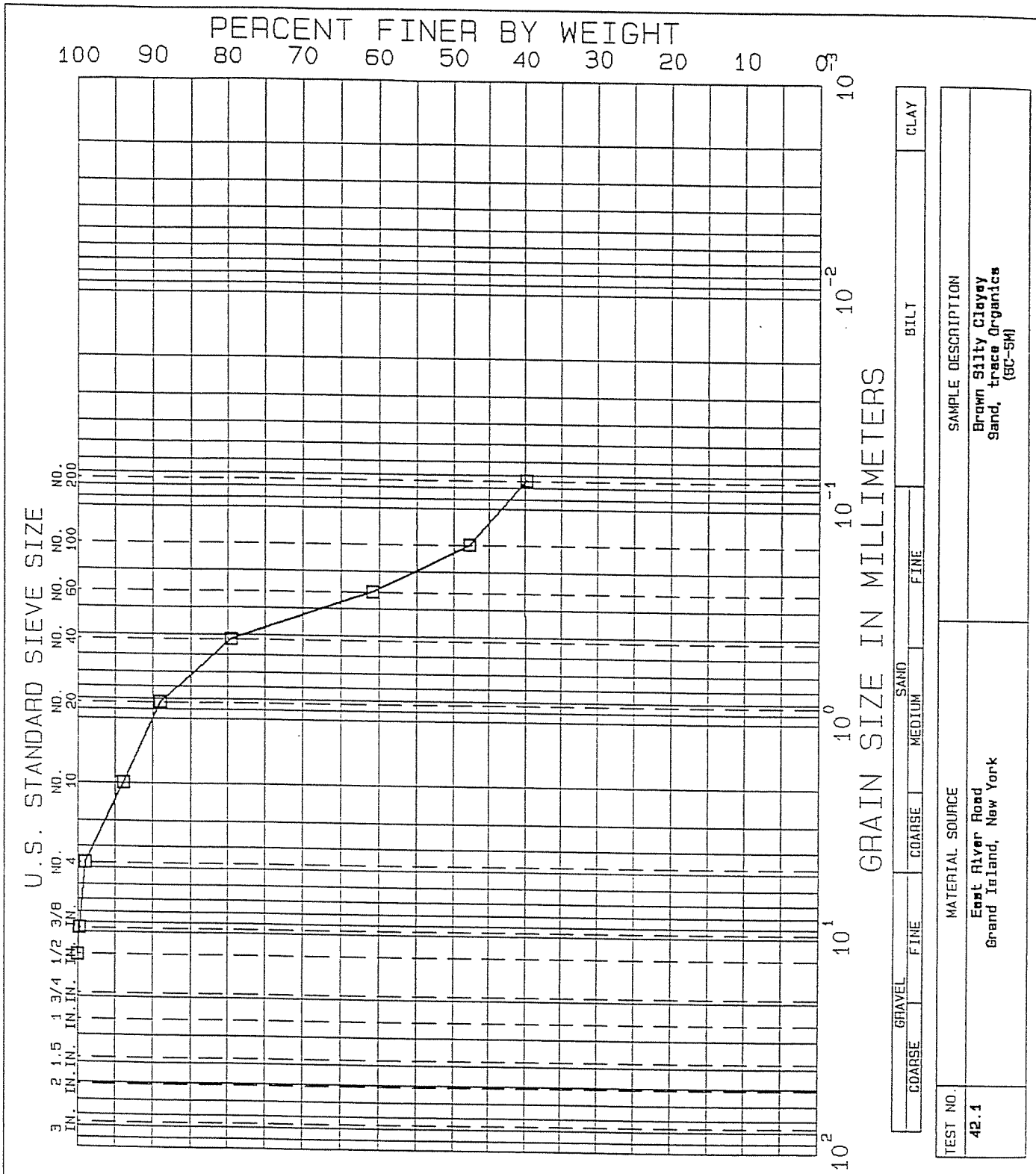
CUT-OFF WALL AND FINAL COVER CONSTRUCTION - TOWN OF NIAGARA, NY

PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	BULK SAMPLE	WORK ORDER NO.	3400
SAMPLE NO.	09228-2	DATE	9/27/98
DEPTH	STOCKPILE 2		
TECH.	HAK/DJB		
REVIEWER	RAR	FILE	55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 2 8 1998



CUT-OFF WALL AND FINAL COVER CONSTRUCTION - TOWN OF NIAGARA, NY

PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	BULK SAMPLE
SAMPLE NO.	09228-3
DEPTH	STOCKPILE 3
TECH.	HAK/DJB
REVIEWER	RAR

WORK ORDER NO. 3400
DATE 9/27/98
FILE 55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

SEP 28 1998

LEGEND FOR GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

WATER CONTENT (ASTM D 2216)

%	=	WATER CONTENT OF AS RECEIVED SAMPLE IN PERCENT

ATTERBERG LIMITS (ASTM D 4318)

LL %	=	LIQUID LIMIT IN PERCENT
PL %	=	PLASTIC LIMIT IN PERCENT
PI	=	PLASTICITY INDEX

ASH, ORGANIC CONTENT (ASTM D 2974)

ORGANIC %	=	ORGANIC CONTENT IN PERCENT
ASH %	=	ASH CONTENT IN PERCENT

GRAIN SIZE ANALYSIS (ASTM D 422)

SIEVE -200 %	=	PERCENT FINES, MATERIAL FINER THAN NO. 200 SIEVE (0.74 MM)
HYD. -2μ %	=	PERCENT FINER THAN 2 MICRONS

pH OF SOILS (ASTM D 4972)

pH in H_2O	=	ACIDITY OR ALKALINITY
pH in 0.01M $CaCl_2$	=	ACIDITY OR ALKALINITY

PERMEABILITY TEST (ASTM D 5084)

PERMEABILITY cm/sec.		=	PERMEABILITY MEASURED IN CENTIMETERS PER SECOND
TYPE OF TEST	Kr	=	RECONSTITUTED (REMOLDED) SAMPLE
	K	=	UNDISTURBED SAMPLE
$\overline{\sigma_c}$ psf		=	EFFECTIVE CONFINING PRESSURE DURING PERMEABILITY TEST IN POUNDS PER SQUARE FOOT
DRY UNIT WT. pcf		=	INITIAL DRY DENSITY OF TEST SAMPLE IN POUNDS PER CUBIC FOOT
WATER CONTENT %		=	INITIAL WATER CONTENT OF TEST SAMPLE IN PERCENT

GEOTECHNICAL LABORATORY TEST PROCEDURES

CUT-OFF WALL AND FINAL COVER CONSTRUCTION
TOWN OF NIAGARA, NEW YORK
File No.55252.00
November 11, 1998

1. The following tests were conducted in general accordance with the noted ASTM test method:

DESIGNATION	TEST METHOD
ASTM D 422-63	Particle-Size Analysis of Soils (Sieve only)
ASTM D 2216-92	Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D 2488-93	Description and Identification of Soils (Visual-Manual Procedure) (see Item 2)
ASTM D 2974-87	Moisture, Ash, and Organic Matter of Peat and Other Organic Soils (see Item 3)
ASTM D 4972-89	pH of Soils (see Item 4)

2. Soil description is based upon particle-size analysis results and a representative portion of the sample used to estimate the plasticity index.

3. Muffle furnace temperature set at 440°C to determine ash and organic content.

4. pH measurements were made on material passing the No. 10 sieve with a potentiometer using a pH sensitive electrode system (method A).

5. The test results are presented on the sheets entitled "Geotechnical Laboratory Testing Data Summary" and "Particle-Size Analysis" which follow.

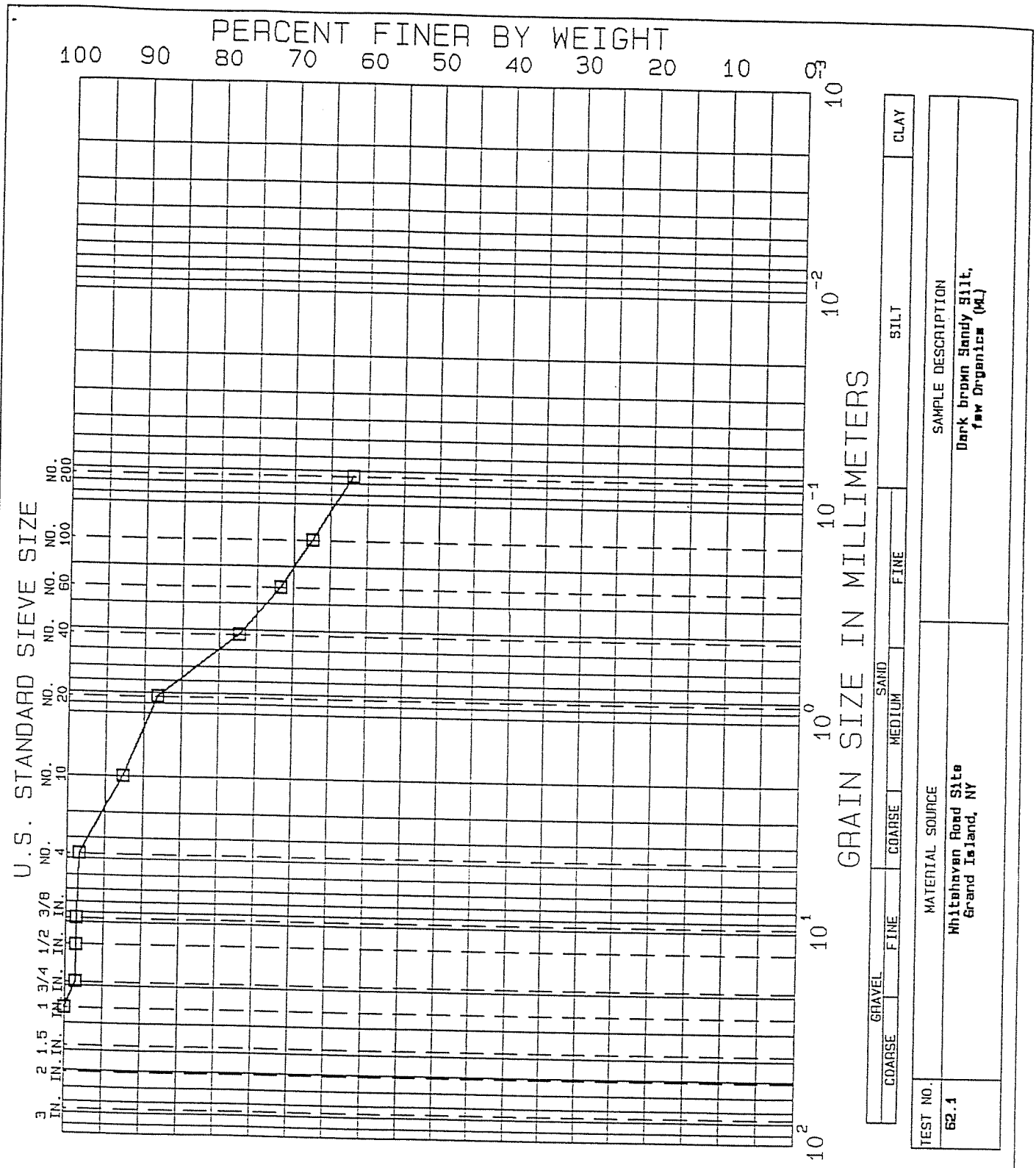
GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

PROJECT NAME: CUT-OFF WALL AND FINAL COVER CONSTRUCTION
LOCATION:TOWN OF NIAGARA, NY
PROJECT NO. 55252.00
CLIENT: SKW METALS & ALLOYS, INC.
MATERIAL SOURCE: WHITEHAVEN ROAD SITE - GRAND ISLAND, NY
DATE REPORTED: 11/11/98
WORK ORDER NO. 3444

IDENTIFICATION			WATER CONTENT	ATTERBERG LIMITS			ASH and ORGANIC CONTENT		GRAIN SIZE ANALYSIS		pH OF SOIL		PERMEABILITY TEST					LABORATORY LOG AND SOIL DESCRIPTION
SAMPLE TYPE	SAMPLE NUMBER	DEPTH ft.	%	LL %	PL %	PI	ORGANIC %	ASH %	SIEVE -200 %	HYD. -2μ %	pH in H_2O	pH in 0.01M $CaCl_2$	PERME-ABILITY cm/sec.	TYPE OF TEST	$\bar{\sigma}_c$ psf	DRY UNIT WT pcf	WATER CONTENT %	
BULK	10208-1		22.7				7.8	92.9	62		4.9	4.7						Dark brown Sandy Silt, few Organics (ML)

Notes: 1) See Legend for Geotechnical Laboratory Testing Data Summary.

2) See Geotechnical Laboratory Test Procedures for specific test procedures completed.



CUT-OFF WALL AND FINAL COVER CONSTRUCTION - TOWN OF NIAGARA, NY

PARTICLE-SIZE ANALYSIS

EXPLOR. NO.	BULK SAMPLE	WORK ORDER NO.	3444
SAMPLE NO.	10208-1	DATE	10/28/98
DEPTH	STOCKPILE		
TECH.	DJB		
REVIEWER	RAR	FILE	55252.00

GZA GeoEnvironmental of New York
Engineers and Scientists

NOV 11 1998

LEGEND FOR GEOTECHNICAL LABORATORY TESTING DATA SUMMARY

WATER CONTENT (ASTM D 2216)

%	=	WATER CONTENT OF AS RECEIVED SAMPLE IN PERCENT

ATTERBERG LIMITS (ASTM D 4318)

LL %	=	LIQUID LIMIT IN PERCENT
PL %	=	PLASTIC LIMIT IN PERCENT
PI	=	PLASTICITY INDEX

ASH, ORGANIC CONTENT (ASTM D 2974)

ORGANIC %	=	ORGANIC CONTENT IN PERCENT
ASH %	=	ASH CONTENT IN PERCENT

GRAIN SIZE ANALYSIS (ASTM D 422)

SIEVE -200 %	=	PERCENT FINES, MATERIAL FINER THAN NO. 200 SIEVE (0.74 MM)
HYD. -2μ %	=	PERCENT FINER THAN 2 MICRONS

pH OF SOILS (ASTM D 4972)

pH in H_2O	=	ACIDITY OR ALKALINITY
pH in 0.01M $CaCl_2$	=	ACIDITY OR ALKALINITY

PERMEABILITY TEST (ASTM D 5084)

PERMEABILITY cm/sec.		=	PERMEABILITY MEASURED IN CENTIMETERS PER SECOND
TYPE OF TEST	Kr	=	RECONSTITUTED (REMOLDED) SAMPLE
	K	=	UNDISTURBED SAMPLE
$\overline{\sigma}_c$ psf		=	EFFECTIVE CONFINING PRESSURE DURING PERMEABILITY TEST IN POUNDS PER SQUARE FOOT
DRY UNIT WT. pcf		=	INITIAL DRY DENSITY OF TEST SAMPLE IN POUNDS PER CUBIC FOOT
WATER CONTENT %		=	INITIAL WATER CONTENT OF TEST SAMPLE IN PERCENT

L

Appendix L

Baghouse Dust and Surface Soil Laboratory Results

ADVANCED ENVIRONMENTAL SERVICES
P.O. Box 165
2186 Liberty Drive
Niagara Falls, New York 14304
(716) 283-3120
FAX (716) 283-4727

(716) 284-8753

Destination Fax number: (904) 824-0726

08/13/98

Attention : Skip Hutton
SKW Alloys
LAN Associates
66 Cuna St.
St Augustine, FL 32084

From : B. Simpson

Number of Pages (including cover sheet): 7

Ref: 82AH

Whitmer Road Recontouring
Chromium Analysis
July 29, 1998

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: LS 2
COLLECTION METHOD: Grab
COLLECTION DATE(S): 8/16/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82F8-2

PROJECT ID: 82F8

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.23	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	ND	1.0	0.02	SW 846 6010
Chromium	0.09	5.0	0.05	SW 846 6010
Lead	ND	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: LS 4
COLLECTION METHOD: Grab
COLLECTION DATE(S): 8/16/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82F8-4

PROJECT ID: 82F8

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	ND	1.0	0.02	SW 846 6010
Chromium	0.08	5.0	0.05	SW 846 6010
Lead	ND	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: LS 6
COLLECTION METHOD: Grab
COLLECTION DATE(S): 8/16/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82F8-6

PROJECT ID: 82F8

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.24	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	ND	1.0	0.02	SW 846 6010
Chromium	ND	5.0	0.05	SW 846 6010
Lead	ND	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: LS 11
COLLECTION METHOD: Grab
COLLECTION DATE(S): 8/16/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82F8-11

PROJECT ID: 82F8

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010
Barium	1.0	100	1.0	SW 846 6010
Cadmium	0.05	1.0	0.02	SW 846 6010
Chromium	0.10	5.0	0.05	SW 846 6010
Lead	0.07	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: LS 12
COLLECTION METHOD: Grab
COLLECTION DATE(S): 8/16/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82F8-12

PROJECT ID: 82F8

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.18	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	ND	1.0	0.02	SW 846 6010
Chromium	0.24	5.0	0.05	SW 846 6010
Lead	0.06	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

SKW ALLOYS

TCLP Analysis of Sample LS-3

Collected August 16, 1998

Prepared By:

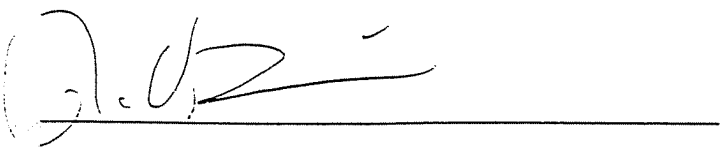
ADVANCED ENVIRONMENTAL SERVICES INC.

"A Company Dedicated to Honesty, Quality and Service"

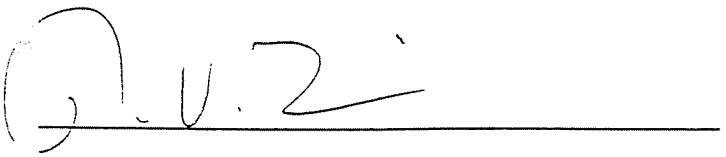
September 2, 1998
REF: DTT182IG/100O
Lab ID No. 10233

QA/QC VERIFICATION FOR PROJECT ID 82IG

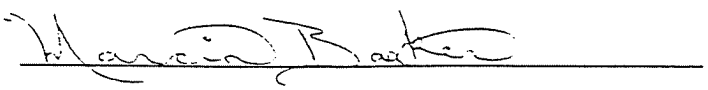
ıe following report, as well as the supporting data, have been carefully reviewed for accuracy, adherance › the cited methods, and completeness. All data contained in this report was generated in accordance with ..ıe AES Laboratory Quality Assurance/Quality Control Program.



..etals Department



ɹuality Control



Project Manager

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

- BQL - Below Quantifiable Limits
- ND - None Detected
- NG - No Growth of Colonies
- NR - Not Requested
- D - Indicates a dilution was required

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: LS-3
COLLECTION METHOD: Grab
COLLECTION DATE(S): 08/18/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82IG-1

PROJECT ID: 82IG

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.23	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	ND	1.0	0.02	SW 846 6010
Chromium	0.04	5.0	0.05	SW 846 6010
Lead	0.09	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES, INC
Extraction Traceability Report

AES Job Code DTT AES Project Reference 82IG

TECHNICIAN	ANALYTICAL METHOD	SAMPLE ID(S)	DATE OF EXTRACTION
RP	1311	82IG-1	9/1/98

Advanced Environmental Services, Inc.
Sample Traceability Report

Project Identification DTT 82IG

Sample #	Sample Collection	Group #	Run #	Prep Method	Prep Date	Analyst	Analytical Methodology	Analysis Date	Analyst
82IG-1	8/18/98	—	—	3010	9/2/98	RP	6010	9/2/98	RP
82IG-1	8/18/98	—	—	7470	9/2/98	JK	7470	9/2/98	JK

Please note: Areas marked by a dash indicate that no sample preparation is required under the applied methodology

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloys

PROJECT NAME: Witmer Road Reconturing

SAMPLER'S SIGNATURE:

PROJECT I.D.#: 23269.22

JOB CODE:

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO_3	H_2SO_4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
8/16/98	3:09	LS1	X		Soil	X								1	TCLP Metals
	3:18	LS2													
	3:22	LS3													
	3:30	LS4													
	3:40	LS5													
	3:48	LS6													
	3:58	LS7													
	4:04	LS8													
	4:11	LS9													
	4:16	LS10													
	4:23	LS11													
	4:55	LS12													

TOTAL NUMBER OF CONTAINERS: 12

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	RECEIVED BY:
1. RELINQUISHED BY:	8/16/98	5:30 PM	W. Joseph McDougall
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: 82AH

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID: 82AH-1 Client Sample ID: Bag #1 07/29/98 Grab	82AH-2 Bag #2 07/29/98 Grab	82AH-3 Bag #3 07/29/98 Grab	
Total Chromium	SW 846 6010	0.7	1.4	mg/kg	110	126	111	
Total Lead	SW 846 6010	4.0	8.0	mg/kg	1940	2200	2210	

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Bag #1
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/29/98
SAMPLE TYPE: Solid

AES CLIENT ID: DTT
AES SAMPLE ID: 82AH-1

PROJECT ID: 82AH

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.25	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	0.05	1.0	0.02	SW 846 6010
Chromium	0.12	5.0	0.05	SW 846 6010
Lead	7.91	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	0.17	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Bag #2
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/29/98
SAMPLE TYPE: Solid

AES CLIENT ID: DTT
AES SAMPLE ID: 82AH-2

PROJECT ID: 82AH

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.31	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	0.06	1.0	0.02	SW 846 6010
Chromium	0.12	5.0	0.05	SW 846 6010
Lead	8.6	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	0.23	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Bag #3
COLLECTION METHOD: Grab
COLLECTION DATE(S): 07/29/98
SAMPLE TYPE: Solid

AES CLIENT ID: DTT
AES SAMPLE ID: 82AH-3

PROJECT ID: 82AH

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	0.16	5.0	0.16	SW 846 6010
Barium	ND	100	1.0	SW 846 6010
Cadmium	0.04	1.0	0.02	SW 846 6010
Chromium	0.19	5.0	0.05	SW 846 6010
Lead	13.5	5.0	0.05	SW 846 6010
Mercury	ND	0.2	0.001	SW 846 7470
Selenium	ND	1.0	0.12	SW 846 6010
Silver	ND	5.0	0.025	SW 846 6010

SKW ALLOYS

ANALYSIS OF WHITMER ROAD SAMPLES

COLLECTED AUGUST 16, 1998

TCLP METALS

Prepared By:

ADVANCED ENVIRONMENTAL SERVICES INC.

"A Company Dedicated to Honesty, Quality and Service"

August 26, 1998
REF. DTT182F8/100O
Lab ID No. 10233

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: B2F8

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: B2F8-1 LS 1 8/16/98 Grab	B2F8-2 LS 2 8/16/98 Grab	B2F8-3 LS 3 8/16/98 Grab	B2F8-4 LS 4 8/16/98 Grab
Total Silver	SW 846 6010	0.5	1.0	mg/kg	ND	ND	ND	ND
Total Aluminum	SW 846 6010	5.0	10.0	mg/kg	12500	10000	6730	10900
Total Boron	SW 846 6010	---	0	mg/kg	10.7	34.3	10.9	15.6
Total Barium	SW 846 6010	0.1	0.2	mg/kg	276	435	182	1080
Total Beryllium	SW 846 6010	0.1	0.2	mg/kg	0.60	0.64	0.53	1.47
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg	ND	1.94	1.81	2.46
Total Cobalt	SW 846 6010	0.9	1.8	mg/kg	11.3	11.2	11.7	13.5
Total Chromium	SW 846 6010	0.7	1.4	mg/kg	1640	1690	510	642
Total Copper	SW 846 6010	0.5	1.0	mg/kg	52.9	136	132	274
Total Iron	SW 846 6010	1.5	6.0	mg/kg	9700	NR	17400	25600
Total Potassium	SW 846 6010	90	180	mg/kg	741	2090	1550	1480
Total Magnesium	SW 846 6010	7.0	14	mg/kg	NR	NR	19900	25500
Total Manganese	SW 846 6010	0.5	1.0	mg/kg	3000	4090	2170	7130
Total Sodium	SW 846 6010	2.0	8.0	mg/kg	456	578	233	463
Total Nickel	SW 846 6010	2.5	5.0	mg/kg	880	287	293	190
Total Lead	SW 846 6010	4.0	8.0	mg/kg	NR	393	698	227

02/10/99 16:49 FAX 003

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: 82F8

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID	82F8-1 LS 1	82F8-2 LS 2	82F8-3 LS 3	82F8-4 LS 4
						8/16/98 Grab	8/16/98 Grab	8/16/98 Grab	8/16/98 Grab
Total Antimony	SW 846 6010	12	24	mg/kg		ND	ND	ND	ND
Total Vanadium	SW 846 6010	0.5	1.0	mg/kg		6.62	12.8	12.1	9.50
Total Zinc	SW 846 6010	0.8	1.6	mg/kg		110	440	556	481

02/10/99 16:49 FAX 004

02/10/99 16:49 FAX

CLIENT: SKW Alloys

PROJECT ID: 82F8

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID: 82F8-5 Client Sample ID: LS 5 8/16/98 Grab	82F8-6 LS 6 8/16/98 Grab	82F8-7 LS 7 8/16/98 Grab	82F8-8 LS 8 8/16/98 Grab
Total Silver	SW 846 6010	0.5	1.0	mg/kg	ND	ND	ND	ND
Total Aluminum	SW 846 6010	5.0	10.0	mg/kg	2510	12200	16200	8060
Total Boron	SW 846 6010	---	0	mg/kg	ND	ND	ND	ND
Total Barium	SW 846 6010	0.1	0.2	mg/kg	48	507	220	136
Total Beryllium	SW 846 6010	0.1	0.2	mg/kg	0.27	0.63	0.95	0.42
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg	ND	5.07	3.1	2.7
Total Cobalt	SW 846 6010	0.9	1.8	mg/kg	ND	43.1	19.7	24.2
Total Chromium	SW 846 6010	0.7	1.4	mg/kg	87	1750	398	807
Total Copper	SW 846 6010	0.5	1.0	mg/kg	86.7	1740	39.8	177
Total Iron	SW 846 6010	1.5	6.0	mg/kg	4130	NR	39400	NR
Total Potassium	SW 846 6010	90	180	mg/kg	461	1060	2200	967
Total Magnesium	SW 846 6010	7.0	14	mg/kg	4780	17800	14700	18700
Total Manganese	SW 846 6010	0.5	1.0	mg/kg	616	7150	2740	3680
Total Sodium	SW 846 6010	2.0	8.0	mg/kg	70.0	241	221	121
Total Nickel	SW 846 6010	2.5	5.0	mg/kg	15.0	658	286	847
Total Lead	SW 846 6010	4.0	8.0	mg/kg	18.1	499	120	307

005

CLIENT: SKW Alloys

PROJECT ID: 82F8

AES CLIENT ID: DTI

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID: 82F8-5 Client Sample ID: LS 5 8/16/98 Grab	82F8-6 LS 6 8/16/98 Grab	82F8-7 LS 7 8/16/98 Grab	82F8-8 LS 8 8/16/98 Grab
Total Antimony	SW 846 6010	12	24	mg/kg	ND	ND	ND	ND
Total Vanadium	SW 846 6010	0.5	1.0	mg/kg	ND	33.1	22.1	15.6
Total Zinc	SW 846 6010	0.8	1.6	mg/kg	72.2	1090	186	380

02/10/99 16:49 FAX

006

CLIENT: SKW Alloys

PROJECT ID: 82F8

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82F8-9 LS 9 8/16/98 Grab	82F8-10 LS 10 8/16/98 Grab	82F8-11 LS 11 8/16/98 Grab	82F8-12 LS 12 8/16/98 Grab
Total Silver	SW 846 6010	0.5	1.0	mg/kg	ND	ND	ND	ND
Total Aluminum	SW 846 6010	5.0	10.0	mg/kg	3500	11600	5920	14000
Total Boron	SW 846 6010	---	0	mg/kg	ND	22.6	10.3	22.0
Total Barium	SW 846 6010	0.1	0.2	mg/kg	51	237	104	63
Total Beryllium	SW 846 6010	0.1	0.2	mg/kg	0.35	0.55	0.41	0.43
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg	2.3	3.0	3.1	ND
Total Cobalt	SW 846 6010	0.9	1.8	mg/kg	16.2	25.0	16.8	8.23
Total Chromium	SW 846 6010	0.7	1.4	mg/kg	403	953	598	3300
Total Copper	SW 846 6010	0.5	1.0	mg/kg	318	146	306	24.2
Total Iron	SW 846 6010	1.5	6.0	mg/kg	NR	32800	23400	7350
Total Potassium	SW 846 6010	90	180	mg/kg	721	1250	1690	4190
Total Magnesium	SW 846 6010	7.0	14	mg/kg	6280	31200	12700	63400
Total Manganese	SW 846 6010	0.5	1.0	mg/kg	2020	5990	2270	869
Total Sodium	SW 846 6010	2.0	8.0	mg/kg	66.6	319	206	226
Total Nickel	SW 846 6010	2.5	5.0	mg/kg	250	646	520	67.5
Total Lead	SW 846 6010	4.0	8.0	mg/kg	250	138	334	796

02/10/99 16:49 FAX

007

CLIENT: SKW Alloys

PROJECT ID: 82F8

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID: 82F8-9 Client Sample ID: LS 9 8/16/98 Grab	82F8-10 LS 10 8/16/98 Grab	82F8-11 LS 11 8/16/98 Grab	82F8-12 LS 12 8/16/98 Grab
Total Antimony	SW 846 6010	12	24	mg/kg	ND	ND	ND	ND
Total Vanadium	SW 846 6010	0.5	1.0	mg/kg	ND	21.8	ND	ND
Total Zinc	SW 846 6010	0.8	1.6	mg/kg	194	330	2190	858

08/10/98 16:49 FAX

Appendix M

Initial Lead Assessment Report

2.3269.2

RECEIVED
DEC 4 - 1998

REPORT

Initial Lead Assessment

SKW Witmer Road Site
Niagara Falls, New York

Prepared For:

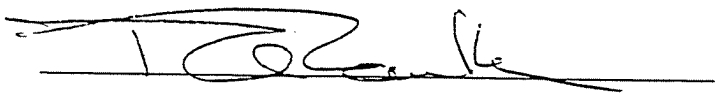
SLC Constructors, Inc.
Lockport, New York

August 1998

O'ROURKE
INCORPORATED

O'Rourke Incorporated
Post Office Box 341
Owego, New York 13827
Phone: (607) 687-7434
Fax: (607) 687-7445

This report was prepared by:



Timothy O'Rourke, CIH

Table of Contents

1. **INTRODUCTION** 5

2. **BACKGROUND INFORMATION** 5

3. **CHEMICAL EXPOSURE SURVEY** 6

   3.1 SAMPLING LOCATIONS 6
   3.2 EQUIPMENT 7
   3.3 SAMPLING AND ANALYTICAL METHODS 7

4. **RESULTS AND DISCUSSION** 7

   4.1 SUMMARY OF RESULTS 7

5. **RECOMMENDATIONS** 8

List of Tables

TABLE 3-1 - *DOCUMENTATION MONITORING* 7
TABLE 4-1 - ANALYTICAL RESULTS AND OSHA PELS 8

Appendices

APPENDIX 1 - CALIBRATION RECORDS
APPENDIX 2 - AIR MONITORING DATA SHEETS
APPENDIX 3 - ANALYTICAL DATA AND CHAIN OF CUSTODY
APPENDIX 4 - LEVEL C DECONTAMINATION PROCEDURES

1. Introduction

The potential for worker exposure to lead was determined following receipt of laboratory analysis of fume dust. The fume dust was encountered during the re-grading of soil at the SKW Metals & Alloys' site an Witmer road. This material was discovered and sampled on July 29, 1998. Preliminary TCLP analytical results were received on August 13, 1998 and reported to the contractor on August 14, 1998. The contractor, SLC Consultants, Inc. elected to hire an outside consultant to evaluate the issues of exposure in accordance with the applicable guidelines.

O'Rourke Incorporated was contracted by SLC Constructors, Inc. located at 6362 Robinson Road, Lockport New York, to perform a chemical exposure survey at the SKW Witmer Road site in Niagara Falls, New York. The survey was performed on August 18 and 19, 1998. Mr. Timothy O'Rourke, CIH and Mr. Kevin O'Rourke performed the survey. The survey was coordinated with Mr. John Kuhn of SLC Constructors, Inc. and Mr. Skip Hutton of LAN Associates. This report summarizes the results of the chemical exposure survey. Some information contained here-in was provided by LAN Associates and/or SLC Constructors, Inc.

2. Background Information

SLC Constructors, Inc. was contracted to perform work at the SKW Witmer Road site in Niagara Falls, New York.

SLC employees in the field had been instructed to notify SLC management and the LAN Associates representative if ferrochomium baghouse dust, drums or any other potential hazardous materials were discovered during the course of performing this work in accordance with standard operating procedures when conducting site activities on a Class 2 landfill in New York State. The ferrochomium dust was described as gray to black, very fine, powdery material.

While performing work onsite SLC employees uncovered baghouse bags containing the bag house dust and loose dust in the soil. Since this material was contained in bags and was a light bluish color, it was not immediately identified as ferrochomium bag house dust. Prior to it's identification and during the cut and fill operation, some of the material was transported and pushed from its original location near stake #470 and #477 about 150 feet north and 400 feet east. Subsequent TCLP analysis of three dust samples collected directly from the bag house bags determined the material in the bags was hazardous waste. The determination was based on lead exceedence of the TCLP standard. The extent of observed baghouse gabs was limited to the original location and the working area of the cut and fill operation to the north and east.

A secondary concern was the possible spreading of loose dust material from the working area to other parts of the site along the on-site access road. Because the extent and concentration of lead in the area of concern were not fully known, work was suspended and soil/dust samples were collected from the original locations, the access road, and other potential areas of concern. Additionally, all SLC workers were examined by a physician specializing in industrial medicine who collected blood samples to determine worker blood levels.

SLC Constructors contracted O'Rourke Incorporated to initiate a response to this situation. O'Rourke Incorporated determined that the appropriate response would be to initiate compliance with the OSHA Lead in Construction Standard, 29 CFR 1910.62, and provide onsite training to SLC employees on the health effects of lead, provide respirator fit testing in preparation of level C upgrade, and perform an initial assessment of lead exposure during work activities.

O'Rourke Incorporated visited the site on August 18, 1998, conducted an onsite training session, a respirator fit testing session, and performed documentation air monitoring when work resumed in level C protection. Through discussions with SLC and LAN Associates representatives, O'Rourke Incorporated determined that the remainder of the site work to occur in the areas suspected of having the highest levels of contamination could be completed by the end of the following day (August 19). Based on this information documentation air monitoring was performed on August 18 and 19, 1998.

3. Chemical Exposure Survey

3.1 Sampling Locations

Table 3-1 lists the employee, work tasks performed and location of work during sampling.

Table 3-1 - Documentation Monitoring

Date	Employee	Work Tasks	Location
8/18/98	Harry Minoian	Cut steel, hand loaded bucket	Southeast portion of site
8/18/98	Paul Kaegebein	Operated bulldozer	Central portion of site
8/18/98	Paul McCollum	Operated excavator, transferred contaminated material from one dumpster to another	Along south perimeter of site
8/19/98	Harry Minoian	Cut steel, hand loaded bucket, figured grades	All over site
8/19/98	Paul Kaegebein	Operated bulldozer	Southeast portion of site
8/19/98	Paul McCollum	Operated excavator loading contaminated material; Operated excavator loading oversized rocks/soil	South central perimeter of site Northeast & central portion of site
8/19/98	John Robertson	Operated bulldozer	Northeast portion of site
8/19/98	Don Kneeppel	Operated backhoe, collected iron and grubbing	Southeast, east, central portion of site

3.2 Equipment

The survey was conducted using SKC and MSA Escort personal air monitoring pumps. All pumps were calibrated prior to use and after sampling was completed. Records of calibration can be found in Appendix 1. Pumps were calibrated according to manufacture's instructions and NIOSH method 7300.

3.3 Sampling and Analytical Methods

All samples were collected using MCE filter cassettes and analyzed for lead using the NIOSH 7300 method. Samples were collected for various lengths of time depending on duration of work shift and battery failure. Detailed sampling information, including sample dates, times, locations, flow rates, sample duration and air volumes collected can be found on air monitoring data sheets in Appendix 2.

4. Results And Discussion

4.1 Summary of Results

Table 4-1 summarizes sample results and compares them with OSHA permissible exposure levels. Sample analysis was performed by Galson Laboratories, 6601 Kirkville Road, East Syracuse, New York. All results were below OSHA's Permissible Exposure Levels (PELs) and action level. Lab results are reported in ug/m3, as are the OSHA PELs.

Table 4-1 - Analytical Results and OSHA PELs

Date	Employee	Air Volume (m3)	Analytical Result (conc ug/m3)	OSHA PEL (ug/m3)	Action Level (ug/m3)
8/18/98	Harry Minoian	0.304	2.6	50	30
8/18/98	Paul Kaegebein	0.316	< 1	50	30
8/18/98	Paul McCollum	0.094	< 4	50	30
8/19/98	Harry Minoian	0.452	< 0.9	50	30
8/19/98	Paul Kaegebein	0.517	< 0.8	50	30
8/19/98	Paul McCollum	0.486	< 0.8	50	30
8/19/98	John Robertson	0.724	< 0.6	50	30
8/19/98	Don Kneeppel	0.886	< 0.4	50	30

5. RECOMMENDATIONS

The following recommendations are made as a result of this survey.

1. Work can be performed in Level D Personal Protective Equipment (PPE).

2. Visible dust emissions should be suppressed using water or other approved dust suppressing agents.

3. Site workers should follow proper hygiene practices, including avoiding smoking, eating, and drinking onsite, staying upwind of dusty operations, and washing hands and face as soon as possible after completing work shift.

4. In the event more bags or drums containing the hazardous material are found, Personal Protective Equipment (PPE) should be upgraded to Level C, additional air monitoring should be performed to determine exposure levels, and personal decontamination facilities should be setup to minimize the spread of contamination offsite. Level C decontamination procedures are included in appendix 4.

APPENDIX 1

Calibration Records

Air Monitoring Calibration Sheets

MSA Escort Sample Pumps

Revised May 1996

Date:	8/18/98	Pump / Serial #	MSA 1
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Date:		Pump / Serial #	
Technician			
Sample Media			

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1			
2			
3			Average (l/min)
Ave.			

Date:		Pump / Serial #	
Technician			
Sample Media			

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1			
2			
3			Average (l/min)
Ave.			

Air Monitoring Calibration Sheets

SKC Sample Pumps

Revised May 1996

Date:	8/18/98	Pump / Serial #	SKC 1
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	1.9	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	1.9	1.95

Date:	8/18/98	Pump / Serial #	SKC 2
Technician			
Sample Media			

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Date:		Pump / Serial #	
Technician			
Sample Media			

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1			
2			
3			Average (l/min)
Ave.			

Air Monitoring Calibration Sheets

MSA Escort Sample Pumps

Revised May 1996

Date:	8/19/98	Pump / Serial #	MSA 1
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Date:	8/19/98	Pump / Serial #	MSA 2
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Date:	8/19/98	Pump / Serial #	MSA 3
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Air Monitoring Calibration Sheets

SKC Sample Pumps

Revised May 1996

Date:	8/19/98	Pump / Serial #	SKC 1
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Date:	8/19/98	Pump / Serial #	SKC 2
Technician	Kevin O'Rourke		
Sample Media	MCE FILTER		

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1	2.0	2.0	
2	—	—	
3	—	—	Average (l/min)
Ave.	2.0	2.0	2.0

Date:		Pump / Serial #	
Technician			
Sample Media			

	Pre - Calibration (l/min)	Post - Calibration (l/min)	
1			
2			
3			Average (l/min)
Ave.			

APPENDIX 2

Air Monitoring Data Sheets

Project Name: Interim Remedial Action Buildings 255, 112, 222, 20	Location	SKW @ Niagara Falls	Project #	
			Date	8/18/98

Pump Type	SKC / MSA	Manufacturer	Aft Edwards	Model	

Serial #	Pre-Cal	Post-Cal	Comments - Include Reason for Sampling, Operations, and Processes
SKC 1	2 l	1.98 l	Lead Sampling during work Activities
SKC 2	2 l	2 l	Lead Sampling during work Activities
MSA 1	2 l	2 l	Lead Sampling during work Activities

Collection Media		Date Analysis Required	

Sample #	Pump Identification Number	Person or Sample Location	Start Time	End Time	Duration	Flow Rate	Air Volume	Analysis Required
1	SKC # 1	Harry Minniman			152	2 l	.304	N7300
2	SKC # 2	Paul Kaegebein			158	2 l	.316	N7300
3	MSA # 1	Paul McCollum			47	2 l	.094	N7300

Technician's Name	Kevin O'Rourke	Date/Time	8/18/98	Signature	Kevin O'RL

General Comments	

Project Name: Interim Remedial Action Buildings 255, 112, 222, 20	Location	SKW @ Niagara Falls	Project #	
			Date	8/19/98

Pump Type		Manufacturer		Model	

Serial #	Pre Cal	Post Cal	Comments - Include Reason for Sampling, Operations, and Processes
SKC 1	2.0	2.0	LEAD ~~Analysis~~ Sampling
SKC 2	2.0	2.0	
MSA 1	2.0	2.0	
MSA 2	2.0	2.0	
MSA 3	2.0	2.0	

Collection Media		Date Analysis Required	

Sample #	Pump Identification Number	Person or Sample Location	Start Time	End Time	Duration	Flow Rate	Air Volume	Analysis Required
1	SKC 1	D... K...			443 ...	2 l/m	886 L	LEAD
2	SKC 2	F... I... H...			243 m...	2 l/m	486 L	LEAD
3	MSA 1	H... M...			22[illegible] m...	2 l/m	454 L	LEAD
4	MSA 2	T... H... K...			[illegible]	2 l/m	774 L	LEAD
5	MSA 3	C... K...			[illegible]	2 l/m	511 L	LEAD
6		B... K...			0			LEAD

Technician's Name	K... C...	Date/Time	8/19/98	Signature	K... C

General Comments	

APPENDIX 3

Analytical Data and Chain of Custody

LABORATORY ANALYSIS REPORT

Galson Laboratories

Client : O'Rourke Incorporated
Site : SKW
Date Sampled : 18-AUG-98
Date Received : 19-AUG-98

Account No.: 12312
Login No. : L45021

Inorganic Lead

Sample ID	Lab ID	Air Vol m3	Total ug	Conc ug/m3
HARRY MINOIAN	L45021-1	0.304	0.808	2.6
PAUL KAEGEBEIN	L45021-2	0.316	<0.38	<1
PAUL MCCOLLUM	L45021-3	0.094	<0.38	<4

Level of quantitation: 0.38 ug
Analytical Method : modified NIOSH 7300; ICAP
OSHA PEL (TWA) : 50 ug/m3
Collection Media : Filter

Submitted by: LK
Approved by : KSB
Date : 20-AUG-98
QC by:
NYS DOH # : 11626

< -Less Than
> -Greater Than
-Not Applicable

mg -Milligrams
ug -Micrograms
ND -Not Detected

m3 -Cubic Meters
l -Liters
ppm -Parts per Million

kg -Kilograms
NS -Not Specified

LABORATORY ANALYSIS REPORT

Galson Laboratories

Client : O'Rourke Incorporated
Site : SKW
Date Sampled : 19-AUG-98
Date Received : 20-AUG-98

Account No.: 12312
Login No. : L45058

Inorganic Lead

Sample ID	Lab ID	Air Vol m3	Total ug	ug/m3
DON KNEEPPEL	L45058-1	0.886	<0.38	<0.4
PAUL MCCOLLUM	L45058-2	0.486	<0.38	<0.8
HARRY MINIOAN	L45058-3	0.452	<0.38	<0.9
PAUL KAEGEBEIN	L45058-4	0.517	<0.38	<0.8
JONATHON ROBERTSON	L45058-5	0.724	<0.38	<0.6
BLANK	L45058-6	NA	<0.38	NA

Level of quantitation: 0.38 ug
Analytical Method : modified NIOSH 7300; ICAP
OSHA PEL (TWA) : 50 ug/m3
Collection Media : Filter

Submitted by: PL
Approved by : Lisa Kovach
Date : 21-AUG-98
QC by:
NYS DOH # : 11626

< -Less Than
> -Greater Than
-Not Applicable

mg -Milligrams
ug -Micrograms
ND -Not Detected

m3 -Cubic Meters
l -Liters
ppm -Parts per Million

kg -Kilograms
NS -Not Specified

Galson Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888- 577-Labs (5227)
Fax: (315) 437-0571

Request for Industrial Hygiene Analysis

Company Name: O'Rourke Inc.

Sampled By: Kevin O'Rourke | Project #: SKW

Send Report to: Tim O'Rourke
P.O. Box 341
Owego N.Y. 13827

Invoice to: Same

P.O. #:

☐ Standard Turn-around Time OR ☒ Rush! Date and Time needed: 8/20/98 / am pm
☐ e-mail
Advance Notification Required. See fee schedule for surcharges.

☐ Fax results to: Tim O'Rourke OR ☐ Phone results to:

Fax #: (607)-687-7445 Phone #: ( ) - ext.

Samples collected in New York State? (Y) N If yes, OSHA Compliance? Y (N)

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Required	Method Reference
Hratch Minoian	8/18/98	MCE	304 l	LEAD	N7300
Paul Kriegbaum	8/18/98	MCE	316 l	LEAD	N7300
Paul McCollum	8/18/98	MCE	94 l.	LEAD	N7300
~~Blank~~ KTC	~~8/18/98~~	~~MCE~~		~~LEAD~~	~~N7300~~
		Blank to be submitted next time			
		DLI Tim 8/19/98 (LOW)			

* For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): Paul McCollum Sample duration shortened by Battery Failure. Discard if Air Vol is insufficient.

Chain of Custody	Print Name	Signature	Date
Relinquished by:	Kevin O'Rourke		8/18/98
Received by LAB			

Samples received after 2pm will be considered as next day's business

Galson
Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888- 577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: O'Rourke Inc.

Sampled By: Kevin O'Rourke | Project #: SKW

Send Report to: Tim O'Rourke
P.O. Box 341
Owego N.Y. 13827

Invoice to: Same

P.O. #:

☐ Standard Turn-around Time OR ☒ Rush! Date and Time needed: 8/21/98 (am) pm
Advance Notification Required. See fee schedule for surcharges.

☐ e mail

☐ Fax results to: Tim O'Rourke OR ☐ Phone results to:

Fax #: (607)-687-7445 Phone #: ( )- - ext.

Samples collected in New York State? (Y) N If yes, OSHA Compliance? Y (N)

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Required	Method Reference
Don Kneeboel	8/19/98	MCE	886 L	LEAD	N7300
Paul McCollum	8/19/98	MCE	486 L	LEAD	N7300
Tom Minicam	8/19/98	MCE	452 L	LEAD	N7300
Mark Knebelein	8/19/98	MCE	517 L	LEAD	N7300
Jonathan Robichaud	8/19/98	MCE	724 L	LEAD	N7300
BLANK	8/19/98	MCE	0 L	LEAD	N7300
This Space for LAB use only					
This Space for LAB use only					

* For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area):

Chain of Custody	Print Name	Signature	Date
Relinquished by:	Kevin O'R...	Kevin O'R...	8/20/98
Received by LAB.			8/20/98

Samples received after 3pm will be considered as next day's business.

Appendix 4

Level C Decontamination Procedures

Decontamination procedures shall be followed by all personnel exiting the contaminate reduction zone. Under no circumstances, other than emergency response, will personnel be allowed to leave the site prior to decontamination.

All disposable PPE shall be removed before meal breaks and at the conclusion of the work day and replaced with new PPE prior to commencing work. In addition, respirator cartridges, if needed, will be changed at the beginning of each day, and at any other time breakthrough is detected. Contaminated clothing will be placed in designated containers in the contaminate reduction zone. Respiratory and other non-disposable PPE will be fully decontaminated and placed in a clean storage area.

Level C Decontamination Procedure:

1. Deposit equipment used on site on plastic drop cloths or in designated containers with plastic liners,
2. Scrub over boots and outer gloves with decontamination solution (soap/detergent),
3. Rinse off decontamination solution with clean water,
4. Remove over boots and outer gloves and deposit in containers with plastic liner,
5. Remove coveralls and dispose,
6. Remove inner glove and deposit in disposal container with plastic liner,
7. Remove respirator,
8. Wash hand and face.

Appendix N

Phase II Site Screening Test Pit Logs

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 1

Location: at Stake #477

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:
Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/25/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Black industrial fill with wood, metal, and brick two emply baghouse bags	
	1						
	2						
	3					White to tan hard Ca slag	
	4					Native brn clay	
	5						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 2

Location: 25' east of Stake #477

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:
Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/25/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Black industrial fill with wood, metal, & brick 2" white to tank Ca slag	No baghouse bags
	1						
	2						
	3					Native brown clay	
	4						
	5						
	36"					Thin black layer mixture of fines and glass-like pebbles	Sample fines at 36"
	38"					Large rock rubble some black granular glass or product?	
	48"					Clay	
	60"					End at 60"	

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 3

Location: 25' west of Stake #477

Project: Site Screening Soil Sampling | Sheet No. 1 of 1
Client: SKW Metals & Alloys | Job #2.3269.22
Boring Contractor: | G.S. Elevation
Groundwater | W.L. Ref. Elev.

Date	Water Depth	Water Elev.	Intake	Type	Cas.	Samp.	Core	Tube
				Diam.				
				Weight				
				Fall				

Date Started 9/25/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Black industrial fill with brick, wood, & metal. No baghouse bags	
	1						
	2					White to tan Ca slag	2.5' to 2.7'
	3					Native brown clay	2.7' to 4.5'
	4						
	5						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 4

Location: at Stake #470

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/25/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Black industrial fill with metal & bricks. No baghouse bags	0-16"
	6"						
	12"						
	18"					White to tan Ca slag	16-48"
	24"						
	30"						
	36"						
	42"						
	48"					Native brown clay	48-60"
	60"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 5

Location: 25' south & 12.5' east of Stake #477

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/26/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brown to black industrial fill with wood, metal, cable and bricks. No baghouse bags or dust (railroad ties)	
	1						
	2						
	3					Tan Ca slag	
	4						
	5					Native brown clay	
	6						
	7						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 6

Location:

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/26/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brown to black industrial fill, very rocky with some wood & some metal. No baghouse bags.	
	1						
	2						
	3					Native brown clay	
	4						
	5						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 7

Location: 25' south & 37.5' west of Stake #477

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/26/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn to blk industrial fill with lots of rocks & some brick, wood, & metal No baghouse bags.	1-2'8"
	1						
	2						
	3					Brown native clay	2'8" - 5'
	4						
	5						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 8

Location: 25' north & 37.5' west of Stake #477

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Boring Contractor:

Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Sheet No. 1 of 1

Job #2.3269.22

G.S. Elevation

W.L. Ref. Elev.

Date Started 9/26/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0						
	6"					Light tan Ca slag water in excavation at ~ 27"	1 -2'
	12"						
	18"						
	24"					Gravel (from foundation sub base?) concrete slag was observed at approx. 15" below subgrade	2'-41"
	30"						
	36"						
	42"					at 41" refusal large steel or concrete	

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 9

Location: 25' north & 12.5' west of Stake #477

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater | W.L. Ref. Elev.

Date	Water Depth	Water Elev.	Intake		Cas.	Samp.	Core	Tube
				Type				
				Diam.				
				Weight				
				Fall				

Date Started 9/26/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn to blk industrial fill with some wood, rock, and brick. No baghouse bags	1-27"
	12"						
	24"						
	36"					Tan Ca slag water at ~ 37"	27'51"
	48"						
	60"					Native greenish gray clay	54-72"
	72"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 10

Location: 25' north & 12.5' east of Stake #477

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/26/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn to blk industrial fill with some wood, rock & brick. No baghouse bags	1-27"
	12"						
	24"						
	36"					Lt brn slay with very fine sand. No water.	27-48"
	48"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 11

Location: Approx. 25' SW of stake #266 in middle of rd.

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:

Groundwater					Cas.	Samp.	Core	Tube
Date	Water Depth	Water Elev.	Intake	Type				
				Diam.				
				Weight				
				Fall				

Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/26/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Road base stone & slag and brn to blk fill No baghouse bags. No water.	Collect soil sample at 15"
	1						
	2						
	3					Lt brn native clay No water	
	4						
	5						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 12

Location: Approx. 12.5' south of stake #226 on rd shoulder

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:
Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/26/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Road base rock slag & gravel. Some gray dust. No baghouse bags	1-31"
	12"						
	24"						
	26"					Lt brn clay. No water	36-60"
	48"						
	60"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 13

Location: Approx. 12.5' north of stake #226 on rd. shoulder

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Sheet No. 1 of 1

Job #2.3269.22

Boring Contractor:

G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube
Date	Water Depth	Water Elev.	Intake	Type				
				Diam.				
				Weight				
				Fall				

W.L. Ref. Elev.

Date Started 9/26/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Rd base rock slag & gravel, some gray dust. No baghouse bags	0-7"
	6"						
	12"					Lt brn clay. No water	7-33"
	18"						
	24"						
	30"						
	36"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 14

Location: Approx. 12.5' east of stake #226 in middle of rd. on ramp

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/26/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Very hard road base of rock and gravel, slag. No dust or baghouse bags.	
	12"						
	24"						
	36"					Lt brn native clay. No water.	
	48"						
	60"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 15

Location: North of Stake #408

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater									
Date	Water Depth	Water Elev.	Intake	Type	Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
				Diam.					Date Started 9/26/98
				Weight					Date Finished
				Fall					Driller
									Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Lt gray slag and dust	
	12"					Lt reddish brn native clay	
	24"						
	36"						
	48"						

LAN ASSOCIATES, Inc.
66 Cuna St. St Augustine Fl. 32084
904-824-6999

Test Pit No. 16

Location: 10' east of Stake #385

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Sheet No. 1 of 1

Job #2.3269.22

Boring Contractor:

G.S. Elevation

Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

W.L. Ref. Elev.

Date Started 9/26/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Lt brn soil and slag mix	0-28"
	12"						
	24"						
	36"					Black slag very hard looks like carbon slag?	28-40"
	48"					Gray native clay followed by lt. reddish brn native clay	40-66"
	60"						
	72"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 17

Location: 25' east of Stake #364

Project: Site Screening Soil Sampling | Sheet No. 1 of 1

Client: SKW Metals & Alloys | Job #2.3269.22

Boring Contractor: | G.S. Elevation

Groundwater					Cas.	Samp.	Core	Tube	W.L. Ref. Elev.
Date	Water Depth	Water Elev.	Intake	Type					Date Started 9/28/98
				Diam.					Date Finished
				Weight					Driller
				Fall					Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Lt brn to brn fill with soil & rock. No bags. No dust. Lt gray material	
	1						
	2						
	3					Lt reddish brn native clay No water	
	4						
	5						

LAN ASSOCIATES, Inc. 66 Cuna St. St. Augustine Fl. 32084 904-824-6999										**Test Pit No.** 18 **Location:** 25' S of stake #342	
Project: Site Screening Soil Sampling										Sheet No. 1 of 1	
Client: SKW Metals & Alloys										Job #2.3269.22	
Boring Contractor:										G.S. Elevation	
Groundwater					Cas.	Samp.	Core	Tube		W.L. Ref. Elev.	
Date	Water Depth	Water Elev.	Intake	Type						Date Started	9/28/98
				Diam.						Date Finished	
				Weight						Driller	
				Fall						Engineer/Geologist	Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn fill soil rock and concrete	Placed by SLC as fill in low area of basin
	6"						
	12"						
	18"						
	24"						
	30"					Lt blue gray dust/slag cemented in hard friable mat.	27-32" No baghouse bags.
	36"					Yellow tan hard slag No baghouse bags	32-41"
	42"					Lt brn native clay No water	41-65"
	48"						
	60"						
	66"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 19

Location: Midway between Stake #340 & 363

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:
Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/28/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn soil & fill with rock and concrete	Placed by SLC in low area of basin
	6"						
	12"						0-24"
	18"						
	24"					Root mat. from original plants in basin. No bags/dust	24-30"
	30"					Yellow tan slag material very hard & compact No bags/dust	30-38"
	36"						
	42"					Lt brn native clay	38-62"
	48"						
	60"						
	66"						

LAN ASSOCIATES, Inc.
66 Cuna St. St Augustine Fl. 32084
904-824-6999

Test Pit No. 20

Location: 35.5' NE of stake #84

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:

Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/28/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Black fill with slag and cinders	
	6"					Lt gray hard slag fill Water at ~ 72" No bags.	
	12"						
	24"						
	30"						
	36"						
	42"						
	48"						
	54"						
	60"						
	66"						
	72"					Greenish brn native clay	
	78"						
	84"						
	90"						
	96"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 21

Location: 35.5' SE of Stake #84

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Sheet No. 1 of 1

Job #2.3269.22

Boring Contractor:

G.S. Elevation

Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

W.L. Ref. Elev.

Date Started 9/28/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Black fill with slag & cinders	0-6"
	6"					Lt gray hard slag fill No bags.	6-52"
	12"						
	18"						
	24"						
	30"						
	36"						
	42"						
	48"						
	54"					Gray native clay	52-76"
	60"						
	66"						
	72"						
	78"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 22

Location: Stake #59
North edge of ramp rd.

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Sheet No. 1 of 1

Job #2.3269.22

Boring Contractor:

G.S. Elevation

Groundwater

W.L. Ref. Elev.

Date	Water Depth	Water Elev.	Intake		Cas.	Samp.	Core	Tube
				Type				
				Diam.				
				Weight				
				Fall				

Date Started 9/28/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Industrial fill (layered slag) white tank & brn No bags.	0-37"
	12"						
	24"						
	36"					Brn native clay Dry no water	37-60"
	48"						
	60"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 23

Location: 40' south of Stake #59 on south edge of rd.

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Sheet No. 1 of 1

Job #2.3269.22

Boring Contractor:

G.S. Elevation

Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

W.L. Ref. Elev.

Date Started 9/28/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn industrial fill with rock slag, brick, and black cinder No baghouse bags	0-35"
	12"						
	24"						
	36"					Brn native clay No water	35-60"
	48"						
	60"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 24

Location: Middle of rd. about 35.5' SE of Stake #59

Project: Site Screening Soil Sampling

Client: SKW Metals & Alloys

Sheet No. 1 of 1

Boring Contractor:

Job #2.3269.22

Groundwater

G.S. Elevation

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

W.L. Ref. Elev.

Date Started 9/28/98

Date Finished

Driller

Engineer/Geologist Skip Hutton

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn industrial fill with gray and black slag and rock/ brick No baghouse bags No dust	0-36"
	12"						
	24"						
	36"					Brn bative clay No water	36-60"
	48"						
	60"						

LAN ASSOCIATES, Inc.
66 Cuna St. St. Augustine Fl. 32084
904-824-6999

Test Pit No. 25

Location: Middle of rd. approx. 35.5' SW of Stake #59

Project: Site Screening Soil Sampling
Client: SKW Metals & Alloys
Boring Contractor:
Sheet No. 1 of 1
Job #2.3269.22
G.S. Elevation
W.L. Ref. Elev.
Date Started 9/28/98
Date Finished
Driller
Engineer/Geologist Skip Hutton

Groundwater

Date	Water Depth	Water Elev.	Intake

	Cas.	Samp.	Core	Tube
Type				
Diam.				
Weight				
Fall				

Well Construction	Depth (ft.)	Samples No.	Type	Rec.	Blows/6"	Classification	Remarks
	0					Brn industrial fill layered gray white & brn mixed with rock and slag. No baghouse bags. No dust	
	12"						
	24"						
	36"						
	48"					Brn native clay No water	
	60"						

Appendix O

Phase II Site Screening Test Pit Laboratory Results

SKW ALLOYS

SKW WITMER ROAD RECONTOURING

SEPTEMBER 30, 1998

Prepared By:

ADVANCED ENVIRONMENTAL SERVICES INC.

"A Company Dedicated to Honesty, Quality and Service"

October 12, 1998
REF: DTT82PU/100O
Lab ID No. 10233

QA/QC VERIFICATION FOR PROJECT ID 82PU

The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherance to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Metals Department

Quality Control

Project Manager

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits
ND - None Detected
NG - No Growth of Colonies
NR - Not Requested
D - Indicates a dilution was required

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-1 Test Pit #1 1-3' 09/25/98 Grab	82PU-2 Test Pit #1 3-3.5' 09/25/98 Grab	82PU-3 Test Pit #1 4-4.5' 09/25/98 Grab	82PU-4 Test Pit #2 1-3' 09/25/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	53	56	96	72
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	30	57	110	87
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	3.5	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	870	800	78	88
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	150	410	34	29
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 82PU-5 Test Pit #2 3-5' 09/25/98 Grab	82PU-6 Test Pit #3 1-2.5' 09/25/98 Grab	82PU-7 Test Pit #3 2.5-2.7' 09/25/98 Grab	82PU-8 Test Pit #3 2.7-4.5' 09/25/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	71	41	70	86
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	150	46	60	34
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	1.7	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	930	1030	59	1140
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	150	160	30	290
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 82PU-9 Test Pit #4 0-16" 09/25/98 Grab	82PU-10 Test Pit #4 16-48" 09/25/98 Grab	82PU-11 Test Pit #4 48-60" 09/25/98 Grab	82PU-12 Test Pit #5 1-3' 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	72	38	58	140
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	55	47	93	120
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	670	980	110	100
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	220	60	23	39
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-13 Test Pit #5 3-5' 09/26/98 Grab	82PU-14 Test Pit #5 5-7' 09/26/98 Grab	82PU-15 Test Pit #6 1-3' 09/26/98 Grab	82PU-16 Test Pit #6 3-5' 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	57	82	61	80
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	180	190	89	80
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	2.8	2.8	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	800	1350	680	68
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	38	170	310	47
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-17 Test Pit #7 1-2' 09/26/98 Grab	82PU-18 Test Pit #7 32-60" 09/26/98 Grab	82PU-19 Test Pit #8 1-2' 09/26/98 Grab	82PU-20 Test Pit #8 24-41" 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	72	100	70	54
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	57	110	150	70
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	2.1	ND	1.8	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	1000	85	1000	1200
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	380	37	150	27
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 09/26/98 Grab	82PU-21 Test Pit #9 12-27" 09/26/98 Grab	82PU-22 Test Pit #9 27-51" 09/26/98 Grab	82PU-23 Test Pit #9 54-72" 09/26/98 Grab	82PU-24 Test Pit #10 12-27" 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *		79	32	58	66
Total Barium	SW 846 6010	0.1	0.2	mg/kg *		73	54	220	110
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *		ND	ND	3.3	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *		21	1150	200	920
Total Lead	SW 846 6010	4.0	8.0	mg/kg *		25	37	410	140
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *		ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *		ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *		ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *		ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *		ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-25 Test Pit #10 27-51" 09/26/98 Grab	82PU-26 Test Pit #11 12-36" 09/26/98 Grab	82PU-27 Test Pit #11 36-60" 09/26/98 Grab	82PU-28 Test Pit #12 12-31" 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	35	90	77	95
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	25	530	74	82
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	2.0	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	12	560	19	22
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	12	170	27	27
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-29 Test Pit #12 3-5' 09/26/98 Grab	82PU-30 Test Pit #13 0-12" 09/26/98 Grab	82PU-31 Test Pit #13 12-36" 09/26/98 Grab	82PU-32 Test Pit #14 1-3' 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	74	110	63	98
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	140	130	277	86
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	490	26	1000	77
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	140	42	550	31
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 82PU-33 Test Pit #14 3-5' 09/26/98 Grab	82PU-34 Test Pit #15 0-1' 09/26/98 Grab	82PU-35 Test Pit #15 1-3' 09/26/98 Grab	82PU-36 Test Pit #16 0-28" 09/26/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	75	59	110	14
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	180	21	86	28
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	2.5	ND	ND	20
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	480	2000	28	260
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	130	510	29	53
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 82PU-37 Test Pit #16 28-40" 09/26/98 Grab	82PU-38 Test Pit #16 40-60" 09/26/98 Grab	82PU-39 Test Pit #17 1-3' 09/28/98 Grab	82PU-40 Test Pit #17 3-5' 09/28/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	87	110	130	70
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	53	94	100	93
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	2300	21	25	1900
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	49	33	34	70
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-41 Test Pit #18 27-32" 09/28/98 Grab	82PU-42 Test Pit #18 32-41" 09/28/98 Grab	82PU-43 Test Pit #18 41-65" 09/28/98 Grab	82PU-44 Test Pit #19 24-30" 09/28/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	91	100	31	72
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	52	95	22	58
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	3900	22	1600	930
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	17	26	750	66
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 82PU-45 Test Pit #19 30-38" 09/28/98 Grab	82PU-46 Test Pit #19 38-62" 09/28/98 Grab	82PU-47 Test Pit #20 0-6" 09/28/98 Grab	82PU-48 Test Pit #20 6-72" 09/28/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	37	90	52	110
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	85	110	91	200
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	490	22	2000	22
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	770	35	37	29
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID 82PU-49 Test Pit #20 72-96" 09/28/98 Grab	82PU-50 Test Pit #21 0-6" 09/28/98 Grab	82PU-51 Test Pit #21 6-52" 09/28/98 Grab	82PU-52 Test Pit #21 52-76" 09/28/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	47	98	47	70
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	35	66	76	100
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	ND	ND	ND	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	2200	22	1600	1700
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	15	24	31	59
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID / Client Sample ID: 82PU-53 Test Pit #22 12-36" 09/28/98 Grab	82PU-54 Test Pit #22 37-62" 09/28/98 Grab	82PU-55 Test Pit #23 12-35" 09/28/98 Grab	82PU-56 Test Pit # 23 36-60" 09/28/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *	120	53	74	130
Total Barium	SW 846 6010	0.1	0.2	mg/kg *	130	100	200	130
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *	2.2	ND	3.7	ND
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *	25	700	700	28
Total Lead	SW 846 6010	4.0	8.0	mg/kg *	32	87	88	39
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *	ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *	ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *	ND	ND	ND	ND

* Results based on sample as received.

CLIENT: SKW Alloys

PROJECT ID: 82PU

AES CLIENT ID: DTT

Analytical Parameter(s)	Method	Method Detection Limit	Practical Quantifiable Limit	Units	AES Sample ID Client Sample ID	82PU-57 Test Pit #24 12-36" 09/28/98 Grab	82PU-58 Test Pit #24 36-60" 09/28/98 Grab	82PU-59 Test Pit #25 12-36" 09/28/98 Grab	82PU-60 Test Pit #25 36-60" 09/28/98 Grab
Total Arsenic	SW 846 6010	0.05	0.2	mg/kg *		98	100	120	85
Total Barium	SW 846 6010	0.1	0.2	mg/kg *		200	110	100	420
Total Cadmium	SW 846 6010	0.8	1.6	mg/kg *		1.8	ND	ND	2.8
Total Chromium	SW 846 6010	0.7	1.4	mg/kg *		3200	25	28	1200
Total Lead	SW 846 6010	4.0	8.0	mg/kg *		140	35	34	47
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *		ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *		ND	ND	ND	ND
Total Mercury	SW 846 7471	0.25	0.5	mg/kg *		ND	ND	ND	ND
Total Selenium	SW 846 6010	0.1	0.4	mg/kg *		ND	ND	ND	ND
Total Silver	SW 846 6010	0.5	1.0	mg/kg *		ND	ND	ND	ND

* Results based on sample as received.

Advanced Environmental Services, Inc
Sample Traceability Report

Project Identification DIT 82P4

Sample #	Sample Collection	Group #	Run #	Prep Method	Prep Date	Analyst	Analytical Methodology	Analysis Date	Analyst
82P4 1-20	9/25-26/98	—	—	3050	10/2/98	RP	6010	10/5/98	RP
82P4 21-40	"	—	—	3050	10/5/98	RP	6010	10/6/98	RP
82P4 41-60	"	—	—	3050	10/8/98	RP	6010	10/9/98	RP
82P4 1-10	9/25-26/98	—	—	7470	10/5/98	JK/DB	7470	10/5/98	JK
82P4 11-19 20-30	"	—	—	7470	10/5/98	DB/JK	7470	10/6/98	JK
82P4 31-60	"	—	—	7470	10/7/98	DB/JK	7470	10/8/98	JK

Please note: Areas marked by a dash indicate that no sample preparation is required under the applied methodology

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloy, Inc

PROJECT NAME: SKW Witmer Rd Reconfiguring

SAMPLER'S SIGNATURE: [signature]

PROJECT I.D.#: 2.3269.22

JOB CODE: _____

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO_3	H_2SO_4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
9/28/98	1:00	Test Pit 19 24-30"	X		Soil/Solid	X								1	Total Metals For (& RCRA Metals)
	1:05	19 30-38"													Then do TCLP Metals only on those samples who's total results are 20 time TCLP limit.
	1:10	19 38-62"													
	1:50	Test Pit 20 0-6"													
	1:45	20 6"-72"													
	2:00	20 72-96"													
	2:30	Test Pit 21 0-6"													
	2:35	21 6-52"													
	2:40	21 52-76"													
	3:20	Test Pit 22 12-36"													
	3:25	22 37-62"													
	3:45	Test Pit 23 12-35"													
	3:50	23 36-60"													
	4:05	Test Pit 24 12-36"													
	4:10	Test Pit 24 36-60"													
	4:25	Test Pit 25 12-36"													
	4:30	Test Pit 25 36-60"													Results for totals must be presented to LAN and approval obtained from LAN prior to any TCLP analysis.
						TOTAL NUMBER OF CONTAINERS								17	

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	RECEIVED BY:
1. RELINQUISHED BY: [signature]	9/30/98	5:45	W. Joseph McDougall
2. RELINQUISHED BY: [signature]	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

CHAIN OF CUSTODY RECORD

ADVANCED ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloys, Inc

PROJECT NAME: SKW Witmer Rd. Recontouring

SAMPLER'S SIGNATURE: [signature]

PROJECT I.D.#: 2.3269.22

JOB CODE: 82PU DTT

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO_3	H_2SO_4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
9/26/98	1:35	Test Pit 13 0-12"	X		Soil/Soil	X								1	Total Metals For 8 RCRA Metals
	1:40	13 12-36"													
	2:00	Test Pit 14 1-3'													Then do TCLP Metals only on those samples who's total results are 20 times TCLP limit.
	2:15	14 3-5'													
	2:40	Test Pit 15 0-1'													
	2:45	15 1-3'													
	3:05	Test Pit 16 0-28"													
	3:10	16 28-40"													
	3:15	16 40-60"													
9/28/98	11:05	Test Pit 17 1-3'													Results for total metals must be presented to LAD and approval obtained from LAD prior to any TCLP analysis.
	11:10	17 3-5'													
	11:30	Test Pit 18 27-32"													
	11:35	18 32-41"													
	11:40	18 41-65"													
						TOTAL NUMBER OF CONTAINERS								14	

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	RECEIVED BY:
1. RELINQUISHED BY: [signature]	9/30/98	5:45	W. Joseph McDougall
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

CHAIN OF CUSTODY RECORD

ADVANCED ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloys, Inc

PROJECT NAME: SKW Winterfield Recontouring

SAMPLER'S SIGNATURE: [signature]

PROJECT I.D.#: 2.326922

JOB CODE: 82PU
DTT

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO_3	H_2SO_4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
9/25/98	3:00	Test Pit #1 1-3'	X		Soil/Solid	X								1	Total Metals for
	3:30	1 3-3.5'												1	(8 RCRA Metals)
	3:40	1 4-4.5'												1	
	4:05	Test Pit 2 1-3'												1	Then TCLP Metals
	4:15	2 3-5'												1	if total metals
	4:35	Test Pit 3 1-2.5'												1	analysis ≥ TCLP
	4:50	3 2.5-2.7'												1	limit X 20. TCLP Metals
	4:55	3 2.7-4.5'												1	only on those samples
	5:08	Test Pit 4 0-16"												1	that exceed 20
	5:10	4 16-48"												1	times the TCLP limit
	5:15	4 48-60"												1	for completed analysis.
9/26/98	7:35	Test Pit 5 1-3'												1	Results for totals must
	7:45	3-5'												1	be presented to LAN
	7:50	5-7'												1	and approval obtained
															from LAN prior to
						TOTAL NUMBER OF CONTAINERS								14	any TCLP analysis.

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	
1. RELINQUISHED BY: [signature]	9/30/98	5:45	RECEIVED BY: W. Joseph McDougall
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

2.3269.22

Skip is getting all of this into computer?

SKW ALLOYS

TCLP Test Pit Analysis

Prepared By:

ADVANCED ENVIRONMENTAL SERVICES INC.

"A Company Dedicated to Honesty, Quality and Service"

October 29, 1998
REF: DTT382W1/1000
Lab ID No. 10233

QA/QC VERIFICATION FOR PROJECT ID 82W1

he following report, as well as the supporting data, have been carefully reviewed for accuracy, adherance to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.

Ray Lacer

Metals Department

Quality Control

Jonathan Lehman

Project Manager

All 'Total' results on soil matrices are calculated on a dry weight basis, unless otherwise noted.
Analyses noted as 'Performed in the laboratory' require immediate testing and should be performed in the field.

The following are standard abbreviations:

BQL - Below Quantifiable Limits
ND - None Detected
NG - No Growth of Colonies
NR - Not Requested
D - Indicates a dilution was required

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #18 27-32"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-1
PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Chromium	0.694	5.0	0.05	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #20 72-96"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-2

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Chromium	0.924	5.0	0.05	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #24 12-36"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-3

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Chromium	ND	5.0	0.05	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #13 12-36"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/26/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-4

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Lead	ND	5.0	0.05	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #18 41-65"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-5

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Lead	ND	5.0	0.05	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #19 30-38"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-6

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Lead	0.057	5.0	0.05	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #5 1-3'
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/26/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-7

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010

ADVANCED ENVIRONMENTAL SERVICES LABORATORY REPORT

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #17 1-3'
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-8

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010

CLIENT: SKW Alloys
SAMPLE ID: Test Pit #20 6-72"
COLLECTION METHOD: Grab
COLLECTION DATE(S): 09/28/98
SAMPLE TYPE: Soil

AES CLIENT ID: DTT
AES SAMPLE ID: 82W1-9

PROJECT ID: 82W1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)

Analytical Parameters	Analytical Results (mg/l)	Maximum Allowable Concentration	Practical Quantifiable Limit	Method
Arsenic	ND	5.0	0.16	SW 846 6010

Advanced Environmental Services, Inc.
Sample Traceability Report

Project Identification DIT 8201

Sample #	Sample Collection	Group #	Run #	Prep Method	Prep Date	Analyst	Analytical Methodology	Analysis Date	Analyst
8201 1-9	9/28/98	—	—	3010	10/28/98	RP	6010	10/28/98	RP

Please note: Areas marked by a dash indicate that no sample preparation is required under the applied methodology.

ADVANCED ENVIRONMENTAL SERVICES, INC
Extraction Traceability Report

AES Job Code DT AES Project Refernce 82wi

TECHNICIAN	ANALYTICAL METHOD	SAMPLE ID(S)	DATE OF EXTRACTION
RP	1311	82wi 1-9	10/27/98

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloys, Inc.

PROJECT NAME: SKW Wilmer Rd Regrantouring

SAMPLER'S SIGNATURE:

PROJECT I.D.#: 232~~8201~~2

JOB CODE: 82W1 BSS

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO3	H2SO4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
9/26/98	8:15	Test Pit 6 1-3'	X		Soil/Solid	X								1	Total Metals For (8 RCRA Metals)
	8:20	6 3-5'													
	8:45	Test Pit #7 1-2'													
	8:40	7 32-60"													Then do TCLP metals only on those samples which's total results are 20 time TCLP limit.
	9:00	Test Pit 8 1-2'													
	9:05	8 24-41"													
	10:20	Test Pit 9 12-27"													
	10:25	9 27-51"													
	10:30	9 54-72"													Results for totals must be presented to LAN and approval obtained from LAN prior to any TCLP analysis.
	10.55	Test Pit 10 12-27"													
	11.05	10 27-51"													
	11:44	Test Pit 11 12"-36"													
	11:50	11 36-60"													
	1.00	Test Pit 12 12-31"													
	1.05	12 3-5'													

TOTAL NUMBER OF CONTAINERS: 15

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	RECEIVED BY:
1. RELINQUISHED BY:	9/30/98	5:45	W. Joseph McDougall
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

CHAIN OF CUSTODY RECORD

ADVANCED ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloys, Inc

PROJECT NAME: SKW W. Inner Ld. Recontouring

SAMPLER'S SIGNATURE: Thomas H. Martin

PROJECT I.D.#: 2.32698.22

JOB CODE: 828JWTRSS

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO_3	H_2SO_4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
9/26/98	1:35	Test Pit 13 0-12"	X		Soil/Soil	X								1	Total Metals For 8 RCRA Metals
	1:40	13 12-36"													
	2:00	Test Pit 14 1-3' ~~0-12"~~													Then do TCLP Metal only on those samples who's total results are 20 times TCLP limit.
	2:15	14 3-5' ~~12-36"~~													
	2:40	Test Pit 15 0-1'													
	2:45	15 1-3'													
	3:05	Test Pit 16 0-28"													
	3:10	16 28-40"													
	3:15	16 40-60"													
9/28/98	11:05	Test Pit 17 1-3'													Results for total metals must be presented to LAN and approval obtained from LAN prior to any TCLP analysis.
	11:10	17 3-5'													
	11:30	Test Pit 18 27-32"													
	11:35	18 32-41"													
	11:40	18 41-65"													

TOTAL NUMBER OF CONTAINERS: 14

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	RECEIVED BY:
1. RELINQUISHED BY: Thomas H. Martin	9/30/98	5:45	W. Spaeth, Mr Daugal
2. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:

CHAIN OF CUSTODY RECORD

ADVANCED ENVIRONMENTAL SERVICES, INC.
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120
(800) 791-3120
Fax (716) 283-4727

CUSTOMER NAME: SKW Metals & Alloys, Inc

PROJECT NAME: SKW Wilmer Pd Recontouring

SAMPLER'S SIGNATURE: [signature]

PROJECT I.D.#: 2.3269.22

JOB CODE: 82PD 82W1 BJS DTT

DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMP	SAMPLE TYPE	CONTAINER CLASSIFICATION: UNPRESERVED	HNO_3	H_2SO_4	HCL	NaOH	VIAL (PRES.)	VIAL (UNPRES.)	OTHER	TOTAL	PARAMETERS / REMARKS
9/25/98	3:00	Test P.I #1 1-3'	X		Soil/Solid	X								1	Total Metals For
	3:30	1 3-3.5'												1	(8 RCRA Metals)
	3:40	1 4-4.5'												1	
	4:05	Test P.I 2 1-3'												1	Then TCLP Metals
	4:15	2 3-5'												1	if total metals
	4:35	Test P.I 3 1-2.5'												1	analysis ≥ TCLP
	4:50	3 2.5-2.7'												1	limit X20 TCLP Metals
	4:55	3 2.7-4.5'												1	only on those samples
	5:08	Test P.I 4 0-16"												1	that exceed 20
	5:10	4 16-48"												1	times the TCLP limit
	5:15	4 48-60"												1	for completed analysis.
9/26/98	7:35	Test P.I 5 1-3'												1	Results for totals must
	7:45	3-5'												1	be presented to LAN
	7:50	5-7'												1	and approval obtained
															from LAN prior to
													TOTAL NUMBER OF CONTAINERS	14	any TCLP analysis.

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

	DATE	TIME	
1. RELINQUISHED BY: [signature]			RECEIVED BY:
2. RELINQUISHED BY:	9/30/98	5:45	RECEIVED BY: D. Joaquin McDougall
3. RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
	DATE	TIME	RECEIVED BY:

Appendix P

Green Environmental Report



Green Environment Specialists, Inc.

September 28, 1998

Harry "Skip" Hutton, P.G.
LAN Associates, Inc.
Environmental and Facilities Engineering
66 Cuna St.
St. Augustine, FL 32084-3619

RE: Stollberg, Inc. (SKW) Project # P98-2262
Tank Removal & Disposal

Dear Mr. Hutton:

Please review the attached chronology, observations, conclusions analytical results and disposal documentation for the above referenced project.

If you have any questions or require additional information please do not hesitate to contact me.

Sincerely,

James A. Wehner
Sales Manager

1-800-275-8256 • (716) 298-5297 • FAX (716) 298-5754
Mailing Address: P.O. Box 2066 N. M. S., Niagara Falls, N.Y. 14301

Green Environment Specialists, Inc.

Presents:

UST DECOMMISSIONING PROJECT

(PROJECT # P98-2262)

STOLLBERG, INC.

FINAL REPORT

Prepared For:

Harry Hutton, P.G.
LAN Associates, Inc.

Printed on recycled paper
to help protect the environment.

GES

Chronology

A.M. Sept. 14, 1998

GES was contacted by LAN Associates regarding an underground fuel storage tank uncovered during excavation of a drainage trench as part of an ongoing project. Matt Schimpf and Jim Wehner responded to the site. The tank contained water with #2 heating oil residue. The steel tank was estimated at 1500-2000 gallon capacity. A sample was taken and screened at GES' laboratory. The sample was then shipped to ExpressLabs for analysis, (see Attachment "A".)

2:00 P.M. 9/14/98

A Vac truck was utilized to remove the tank contents (1500 gallons), transported to Industrial Recycling Specialists, Inc., (IRSI), located in Niagara Falls, NY. The material was stored in a holding tank pending receipt of analysis and disposal by IRSI.

September 15, 1998

GES mobilized to the site to remove tank and address possible soil contamination. Excavation was provided by SLC contractors, Inc. Non-contaminated surface soil was excavated and staged for reuse, contaminated soil was excavated, staged on 6 mil poly liner and covered. A sample of the contaminated soil was taken, shipped to ExpressLabs for analysis as required by disposal facility, (see attachment "B".) The tank was removed from the excavation and placed on poly. An inspection of the tank and piping confirmed the following:

- It was in fact a heating oil tank.
- The capacity of the tank was 1500 gallons.
- The tank was of single wall, steel construction, wrapped in burlap and coated with what appeared to be coal tar.
- The tank was intact with no visible holes with the exception of one on the top end weld seam caused by excavation.

It is assumed that leakage occurred due to pipe and fitting breakage as well as spillage from filling.

The tank was bedded in clay, visible stains and odor were observed. Excavation and staging of contaminated soil continued until visibly stained

soil/clay were removed. Soil samples were obtained from the sidewalls and bottom of the excavation and shipped to ExpressLabs for analysis per NYSDEC *"STARS Memo #1"* guidelines, (i.e. Methods 8021 & 8270 BN) please see attachment "C". The NYSDEC was advised of the contamination and a spill number was issued (Spill # 9875064.) Mr. Kevin Glaser of the NYSDEC inspected the excavation and verbally acknowledged and agreed to immediate backfilling. Fifty-three tons of #2 crusher run and the stockpiled clean fill material were placed in the excavation and compacted mechanically. The tank was transported by GES to their facility for cutting, cleaning and ultimate disposal as scrap. (See disposal documentation.)

September 25, 1998

Following receipt of the contaminated soil analysis, a disposal approval was obtained from Modern Landfill, Inc. the soil was loaded by SLC into 2 modern trucks for transport and disposal. (Scale tickets attached.)

No further action is required.

CC: Stollberg, Inc.
NYSDEC

A.

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS

NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8260

Cust	GREEN ENVIRON. SPEC.
Address	8335 QUARRY
	NIAGARA FALLS, NY 14304
Attn:	MATT SCHIMPF
Phone	298-5297
FAX	298-5754

PO Number:	MJS-1213
Project Number:	
Project Cust:	STOLLBERG LAN ASSOC.
Project Site:	OLD SHW
Date FAXED:	
Lab Director	

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* = Soil=ug/kg ppb

*See Individual Limit Water=ug/L ppb

Results shown are: Volatile Organic Analytes

Extraction Method: EPA 5030 Purge & Trap

Analysis Method: EPA 8260 GC/MS

Sample ID (LAB)	20689	
Sample ID#1(CUST)	GROUND H2O FROM UST	
Sample ID#2(CUST)		
Matrix	WATER	
Sampled By	M.J. SCHIMPF	
Date Sampled	09/14/98	11:00
Date Received	09/16/98	09:20
Date Analyzed	09/16/98	
Date Reported	09/17/98	

	Results	Det Limit*		Results	Det Limit*
Dichlorodifluoromethane	< DL(U)	200.0	Carbon Tetrachloride	< DL(U)	200.0
Vinyl Chloride	< DL(U)	200.0	1,2-Dichloroethane	< DL(U)	200.0
Chloromethane	< DL(U)	200.0	Trichloroethene	< DL(U)	200.0
Bromomethane	< DL(U)	200.0	1,2-Dichloropropane	< DL(U)	200.0
Chloroethane	< DL(U)	500.0	Dibromomethane	< DL(U)	200.0
Trichlorofluoromethane	< DL(U)	200.0	Bromoform	< DL(U)	200.0
1,1-Dichloroethene	< DL(U)	200.0	Bromodichloromethane	< DL(U)	200.0
Methylene Chloride	< DL(U)	1550.0	1,1,2,2-Tetrachloroethane	< DL(U)	200.0
trans-1,2-Dichloroethene	< DL(U)	200.0	Benzene	< DL(U)	400.0
Methyl-tert-butyl ether	< DL(U)	800.0	cis-1,3-Dichloropropene	< DL(U)	200.0
1,1-Dichloroethane	< DL(U)	200.0	Toluene	< DL(U)	500.0
2,2-Dichloropropane	< DL(U)	200.0	trans-1,3-Dichloropropene	< DL(U)	200.0
cis-1,2-Dichloroethene	< DL(U)	200.0	1,1,2-Trichloroethane	< DL(U)	200.0
Methyl ethyl ketone	< DL(U)	2000.0	Tetrachloroethene	< DL(U)	200.0
Bromochloromethane	< DL(U)	200.0	1,3-Dichloropropane	< DL(U)	200.0
Chloroform	< DL(U)	200.0	Dibromochloromethane	< DL(U)	200.0
1,1,1-Trichloroethane	< DL(U)	200.0	1,2-Dibromoethane	< DL(U)	200.0
1,1-Dichloropropene	< DL(U)	200.0	Ethylbenzene	< DL(U)	200.0

* DL = Detection Limit

RESULTS WHEN YOU WANT THEM

P.11/15 7165544114 SEP-22-1998 17:09

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS

NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8260

Cust GREEN ENVIRON. SPEC.
Address 8335 QUARRY
NIAGARA FALLS, NY 14304
Attn: MATT SCHIMPF

Phone 298-5297
FAX 298-5754

PO Number: MJS-1213
Project Number:
Project Cust: STOLLBERG LAN ASSOC.
Project Site: OLD SHW
Date FAXED:
Lab Director

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print
Detection Limits* = Soil=ug/kg ppb
*See Individual Limit Water=ug/L ppb

Results shown are: Volatile Organic Analytes
Extraction Method: EPA 5030 Purge & Trap
Analysis Method: EPA 8260 GC/MS

Sample ID (LAB)	20689	
Sample ID#1(CUST)	GROUND H2O FROM UST	
Sample ID#2(CUST)		
Matrix	WATER	
Sampled By	M.J. SCHIMPF	
Date Sampled	09/14/98	11:00
Date Received	09/16/98	09:20
Date Analyzed	09/16/98	
Date Reported	09/17/98	

	Results	Det Limit*		Results	Det Limit*
m&p-Xylene	< DL(U)	400.0	1,2-Dichlorobenzene	< DL(U)	200.0
o-Xylene	< DL(U)	200.0	n-Butylbenzene	< DL(U)	200.0
Styrene	< DL(U)	200.0	1,2-Dibromo-3-chloropropane	< DL(U)	500.0
Isopropylbenzene	< DL(U)	200.0	1,2,4-Trichlorobenzene	< DL(U)	400.0
n-Propylbenzene	< DL(U)	200.0	Hexachlorobutadiene	< DL(U)	200.0
1,3,5-Trimethylbenzene	207.2	200.0	Naphthalene	< DL(U)	1000.0
tert-Butylbenzene	< DL(U)	200.0	1,2,3-Trichlorobenzene	< DL(U)	1000.0
1,2,4-Trimethylbenzene	631.6	200.0			
sec-Butylbenzene	< DL(U)	200.0			
Chlorobenzene	< DL(U)	200.0			
1,1,1,2-Tetrachloroethane	< DL(U)	200.0			
Bromobenzene	< DL(U)	200.0			
1,2,3-Trichloropropane	< DL(U)	200.0			
2-Chlorotoluene	< DL(U)	200.0			
4-Chlorotoluene	< DL(U)	200.0			
1,3-Dichlorobenzene	< DL(U)	200.0			
4-Isopropyltoluene	< DL(U)	200.0			
1,4-Dichlorobenzene	< DL(U)	200.0			

< DL(U)= analyzed but not detected
L= estimated value
B=analyte found in blank
E=exceed calibration range

* DL = Detection Limit

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS

NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - PCB BY 608

Cust	GREEN ENVIRON. SPEC.
Address:	8335 QUARRY
	NIAGARA FALLS, NY 14304
Attn:	MATT SCHIMPF
Phone	298-5297
FAX	298-5754

PO Number:	MJS-1213
Project Number:	
Project Cust:	STOLLBERG LAN ASSOC.
Project Site:	OLD SHW
Date FAXED:	
Lab Director	

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* = Soil=ug/kg ppb

*See Individual Limit Water=ug/L ppb

Extraction Method: EPA 3510 Liquid/Liquid Extraction

Analysis Method: EPA 608 GC ECD

Sample ID (LAB)	20689	
Sample ID#1(CUST)	GROUND H2O FROM UST	
Sample ID#2CUST)		
Matrix	WATER	
Sampled By	M.J. SCHIMPF	
Date Sampled	09/14/98	11:00
Date Received	09/16/98	9:20
Date Analyzed	09/18/98	
Date Reported	09/21/98	
	Results	**Det Limit***
Aroclor 1016	< DL(U)	1.0
Aroclor 1221	< DL(U)	1.0
Aroclor 1232	< DL(U)	1.0
Aroclor 1242	< DL(U)	1.0
Aroclor 1248	< DL(U)	1.0
Aroclor 1254	< DL(U)	1.0
Aroclor 1260	< DL(U)	1.0

< DL(U)=analyzed but not detected

L=estimated value

B=analyte found in blank

E=exceed calibration range

* DL = Detection Limit

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS

NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - MISC

Cust GREEN ENVIRON. SPEC.
Address 8335 QUARRY
NIAGARA FALLS, NY 14304
Attn: MATT SCHIMPF

Phone 298-5297
FAX 298-5754

PO Number: MJS-1213
Project Number:
Project Cust: STOLLBERG LAN ASSOC.
Project Site: OLD SHW
Date FAXED:
Lab Director

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type
Detection Limits = Water=mg/L or PPM
Soil=mg/Kg or PPM

Sample ID (LAB)	20689	
Sample ID#1(CUST)	GROUND H2O FROM UST	
Sample ID#2(CUST)		
Matrix	WATER	
Sampled By	M.J. SCHIMPF	
Date Sampled	09/14/98	11:00
Date Received	09/16/98	09:20
Date Analyzed	09/18/98	
Date Reported	09/22/98	

Ignitability: Negative , No flash to 140F/60C

Corrosivity: pH=7.74

Reactivity: Sulfide: < 20 PPM
Cyanide: < 20 PPM

< DL(U)= analyzed but not detected
L= estimated value
B=analyte found in blank
E=exceed calibration range

20689 MANILLA COPY

PO Box 40 5611 Water Street Middlesex NY 14507
1-800-THE LABS Tel: 1-800-843-5227 FAX 1-716-554-4114

WORKORDER

SPECIALIZING IN ENVIRONMENTAL SOILS TESTS
NY # 11369 NJ # 73744 CA # 2055 SC # 91011

3 Day 9/18

CUSTOMER: Green Environmental Spec.
ADDRESS: 8335 Quality Rd.
CITY: Manlius Falls
STATE/ZIP: NY 14304
PHONE: 716-398-5397
FAX: 716-395-5754
CONTACT:

PO NUMBER: MJS-12/3
PROJECT NO:
PROJECT CUST: Stollsburg, Env. Assoc.
PROJECT SITE: Old Shell

SEND RESULTS: ☑FAX ☐EXPR MAIL
PHONE RESULTS: ☐ YES ☑ NO

SAMPLE DEMOGRAPHICS AND TESTS REQUIRED

8020 BTEX + MTBE	8270 (Stars)	FULL TCLP
8021 - MTBE	625	TCLP LESS HERBS & PESTS
503.1	PCBS	TCLP VOLATILES
TPH GASOLINE	602	TCLP SEMI-VOLATILES
TPH DIESEL	624	8 RCRA METALS (TCLP)
8240	TOX	HERBICIDES
8260 (Stars)	LEAD ONLY	PESTICIDES
8260		REACTIVITY
8 RCRA METALS (DIRECT)		CORROSIVITY
		FLASH POINT

(DIESEL)
(GAS OR OIL)
SUSPECT : _____

SPECIAL INSTRUCTIONS: LAN980914A

LIST ANALYSIS REQUIRED

TPH, PCB, Pest, Herb, VOA, Chromatograms

DATE	TIME	SAMPLE DESCRIPTION / LOCATION / MATRIX						
9/14	11:00	Ground Water Flow UST	✓					

CHAIN OF CUSTODY RECORD

of SAMPLES 1 # of CONTAINERS 1
SAMPLED BY: MJ Schmidt
SIGNATURE: M.J. Schmidt
NAME: M.J. Schmidt
DATED: 9/14/98 TIME: 11:00 HRS
HOW SENT: ☐EXP MAIL ☑HAND CARRY
SIGNATURE 2:
NAME 2:
DATED 2: / / TIME: :
HOW SENT 2: ☐EXP MAIL ☐HAND CARRY

SAMPLES RECEIVED BY:
SIGNATURE: Steve C Green
NAME: STEVE GREEN
DATE: / / TIME: :
HOW RECD: ☐EXP MAIL ☐HAND CARRY
FREIGHT IN: $
LOGGED IN: / / TIME: :
SAMPLE COND: SAMPLE TEMP -
LAB NOTES:

White-Lab, Yellow-

RESULTS WHEN YOU WANT THEM

expwo20doc

B

STOLLBERG

September 22, 1998

Mr. Tod Davidson
Modern Corporation
4746 Model City Road
Model City, NY 14107-0209

WCR – Excavated Soil

Dear Mr. Davidson:

This letter serves to inform you that the enclosed waste characterization report describes a material comprised of soil impacted by virgin heating oil as the result of an accidental release. There are no other contaminants in the aforementioned soil. Please review and approve this waste characterization report and the accompanying analyses at your earliest convenience.

Sincerely,

Charles A. Ogin
Plant Manager

GENERATOR WASTE CHARACTERIZATION REPORT

INSTRUCTIONS: The following form is required for disposal of nonhazardous industrial/commercial wastes at Modern Landfill. Please complete all sections of this report. Send completed report along with the analytical, chain of custody and the Application for Disposal of an Industrial Waste Stream (47-19-7) to this office. A separate form is required for each waste stream.

GENERATOR INFORMATION:

Generator Name: Stollberg, Inc.

Generating Facility Address: 4111 Witmer Rd. P.O. Box 368
NIAGARA FALLS, NY 14305-0368

Technical Contact: Charles Ogin Phone: (716) 278 - 1656

Alternate Contact: Frank Schoner Phone: (716) 278 - 1638

INVOICING INFORMATION:

Contracting Firm: GREEN ENVIRONMENT SPECIALISTS, INC.

Contact: MATTHEW J. SCHIMPF Phone: (800) 275 - 8256

Do you have an existing account with Modern Landfill? [✓] Yes [ ] No

Billing Address: 8335 QUARRY RD.
NIAGARA FALLS NY 14304

TRANSPORTER INFORMATION:

Hauler Name: Lewiston Trucking NYSDEC Permit No. _____

Contact Person: TOD DAVIDSON Phone: (____) _____ - _____

Is Modern Landfill currently on your Transporter Permit: [✓] Yes [ ] No

If no, please enclose a Part C Application to cover this waste stream.

WASTE INFORMATION:

Common name of waste: Soil from UST EXCAVATION / DECOMMISSIONING

Description of process generating this waste: ROUTINE ABATEMENT / DECOMMISSIONING OF UST THAT PREVIOUSLY CONTAINED FUEL OIL.

Is this waste hazardous under US EPA Guidelines & 6NYCRR Part 371 (d)? [ ] Yes [✓] No

Indicate the category which best describes this waste stream:

- [ ] Industrial Waste
- [ ] Household Waste
- [✓] Commercial Solid Waste
- [ ] Construction & Demolition Debris
- [ ] Other (Please Specify) _____

PHYSICAL CHARACTERISTICS OF WASTE

The waste is at least 20% solid and contains no free liquid	/	Yes [✓] No [ ]
The Flashpoint of the waste is >140 F		Yes [✓] No [ ]
The pH level of the waste is between 2.0 and 12.5		Yes [✓] No [ ]
Is the waste reactive (Cyanide/Sulfide)?		Yes [ ] No [✓]
Is the waste free of PCBs?		Yes [✓] No [ ]
Color: Brown	Odor: [ ] Strong [X] Mild [✓] None	

TCLP TESTING AND CERTIFICATION

METALS

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
ARSENIC	5.0		✓
BARIUM	100.0		✓
CADMIUM	1.0		✓
CHROMIUM	5.0		✓
LEAD	5.0		✓
MERCURY	0.2		✓
SELENIUM	1.0		✓
SILVER	5.0		✓

HERBICIDES/PESTICIDES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
2,4-D	10.0		✓
2,4,5-TP (SILVEX)	1.0		✓
ENDRIN	0.02		✓
LINDANE	0.4		✓
METHOXYCHLOR	10.0		✓
TOXAPHENE	0.5		✓
CHLORDANE	0.03		✓
HEPTACHLOR	0.008		✓

ACID EXTRACTABLES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
O-CREOSOL	200.0		✓
M-CREOSOL	200.0		✓
P-CREOSOL	200.0		✓
PENTACHLOROPHENOL	100.0		✓
2,4,5-TRICHLOROPHENOL	400.0		✓
2,4,6-TRICHLOROPHENOL	2.0		✓

BASE NEUTRALS EXTRACTABLES

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1,4-DICHLOROBENZENE	7.5		✓
2,4-DINITROTOLUENE	0.13		✓
HEXACHLOROBENZENE	0.13		✓
HEXACHLOROBUTADIENE	0.5		✓
HEXACHLOROETANE	3		✓
NITROBENZENE	2		✓
PYRIDINE	5		✓

VOLATILE ORGANICS

CONSTITUENT	NON-HAZARDOUS LIMIT (mg/l)	PRESENT	NOT PRESENT
1,1-DICHLOROETHYLENE	0.7		✓
METHYL ETHYL KETONE	200.0		✓
TETRACHLOROETHYLENE	0.7		✓
VINYL CHLORIDE	0.2		✓
BENZENE	0.5		✓
CARBON TETRACHLORIDE	0.5		✓
CHLOROBENZENE	100.0		✓
CHLOROFORM	6.0		✓
TRICHLOROETHYLENE	0.5		✓
1,2-DICHLOROETHANE	0.5		✓

CERTIFICATION

I CERTIFY THAT ALL INFORMATION CONTAINED WITHIN THIS GENERATOR WASTE CHARACTERIZATION REPORT, INCLUDING ALL ATTACHED INFORMATION, IS COMPLETE AND ACTUAL AND IS AN ACCURATE REPRESENTATION OF KNOWN OR SUSPECTED HAZARDS DESCRIBED HEREIN.

SIGNATURE: [signature]

PRINTED NAME: Charles A. Dain III

TITLE: Plant Manager

COMPANY: [illegible]

DATE: 9/22/95

GENERIC APPROVAL

INSTRUCTIONS: The following sections should only be used if you are disposing of Virgin Petroleum Contaminated Solid Waste. Virgin Petroleum material disposal requirements are divided into two (2) categories, lighter than #2 Fuel Oil and #2 Fuel Oil and Higher. Material resulting from Underground Storage Tanks (UST) and Tank Bottoms from storage and Crude Oil are also included in this program. The tables below indicate the minimum testing requirements for the waste stream. All conditions set forth in the preceding waste characterization report must also be met and certified by the generator.

Provide in detail the process or incident producing this waste on your company's letterhead. Modern Landfill must have the original on file and the letter must clearly state that this was indeed a virgin product spill or otherwise and the resulting debris/cleanup material is free of prior residue or spill. This letter must also state the type of material spilled, ie. #2 fuel oil, gasoline, mineral oil, etc.

LIGHTER THAN #2 FUEL OIL
Include all attachments detailed above.

CONSTITUENT	PRESENT (VALUE)	NOT PRESENT
TCLP LEAD		
TCLP BENZENE		
FLASHPOINT		

#2 FUEL OIL AND HIGHER
Include all attachments detailed above.

CONSTITUENT	PRESENT (VALUE)	NOT PRESENT
TCLP BENZENE		✓
FLASHPOINT		✓

CERTIFICATION

I CERTIFY THAT ALL INFORMATION CONTAINED WITHIN THIS GENERATOR WASTE CHARACTERIZATION REPORT, INCLUDING ALL ATTACHED INFORMATION IS COMPLETE AND ACTUAL AND IS AN ACCURATE REPRESENTATION OF KNOWN OR SUSPECTED HAZARDS DESCRIBED HEREIN.

SIGNATURE _____ DATE 9/22/98

PRINTED NAME Charles A. Ogin III TITLE Asst Manager

B

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS

NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - TCLP 8021

Cust	GREEN ENVIRON. SPEC.
Address:	8335 QUARRY
	NIAGARA FALLS, NY 14304
Attn:	MATT SCHIMPF
Phone	298-5297
FAX	298-5754

PO Number:	MJS-1213
Project Number:	
Project Cust:	SAW-LAN ASSOC.
Project Site:	OLD SHW
Date FAXED:	
Lab Director	

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print

Detection Limits* = Soil=ug/kg ppb

*See Individual Limit Water=ug/L ppb

Results shown are: Volatile Organics

Extraction Method: EPA 5030 Purge & Trap

Analysis Method: EPA 8021 GC PID/FID

Sample ID (LAB)	20687	
Sample ID#1(CUST)	CONT. SOIL FROM TANK	
Sample ID#2(CUST)	LAN 980915A	
Matrix	SOIL	
Sampled By	J.A. WEHNER	
Date Sampled	9/15/98	11:15
Date Received	9/16/98	9:20
Date Analyzed	9/19/98	
Date Reported	9/21/98	
	Results	Det Limit* (PPB)
Benzene	< DL(U)	1.0

< DL (U) = compound analyzed but not detected B = analyte found in blank

L = estimated value E = exceed calibration range

Analysis performed on TCLP extract

RESULTS WHEN YOU WANT THEM

RPT8021B

EXPRESSLAB PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - MISC

Cust GREEN ENVIRON. SPEC.
Address 8335 QUARRY
NIAGARA FALLS, NY 14304
Attn: MATT SCHIMPF

Phone 298-5297
FAX 298-5754

PO Number: MJS-1213
Project Number:
Project Cust: SAW-LAN ASSOC.
Project Site: OLD SAW
Date FAXED:
Lab Director

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type
Detection Limits = Water=mg/L or PPM
Soil=mg/Kg or PPM

Sample ID (LAB)	20687	
Sample ID#1(CUST)	CONT. SOIL FROM TANK	
Sample ID#2(CUST)	LAN 980915A	
Matrix	SOIL	
Sampled By	J.A. WEHNER	
Date Sampled	09/15/98	11:15
Date Received	09/16/98	09:20
Date Analyzed	09/21/98	
Date Reported	09/21/98	

Ignitability: **Negative , No flash to 140F/60C**

< DL(U)= analyzed but not detected
L= estimated value
B=analyte found in blank
E=exceed calibration range

C

EXPRESSLAB

PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS

NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8021

Cust GREEN ENVIRON. SPEC.
Address: 8335 QUARRY
NIAGARA FALLS, NY 14304
Attn: MATT SCHIMPF

Phone 298-5297
FAX 298-5754

PO Number: MJS-1213
Project Numbe
Project Cust: SAW-LAN ASSOC.
Project Site: OLD SHW
Date FAXED:
Lab Director

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print
Detection Limits* = Soil=ug/kg ppb
*See Individual Limit Water=ug/L ppb

Results shown are: Volatile Organics
Extraction Method: EPA 5030 Purge & Trap
Analysis Method: EPA 8021 GC PID/FID

Sample ID (LAB)	20688	
Sample ID#1(CUST)	BOTTOM OF EXCAV.	
Sample ID#2(CUST)	LAN 980915B	
Matrix	SOIL	
Sampled By	J.A. WEHNER	
Date Sampled	9/15/98	9:15
Date Received	9/16/98	9:20
Date Analyzed	9/18/98	
Date Reported	9/18/98	

	Results	Det Limit (PPB)
MTBE	< DL(U)	3.5
Benzene	< DL(U)	3.5
Toluene	< DL(U)	3.5
Ethylbenzene	< DL(U)	3.5
m&p-Xylene	< DL(U)	7.0
o-Xylene	< DL(U)	3.5
Isopropylbenzene	4.2	3.5
n-Propylbenzene	< DL(U)	3.5
1,3,5-Trimethylbenzene	4.5	3.5
tert-Butylbenzene	< DL(U)	3.5
1,2,4-Trimethylbenzene	< DL(U)	3.5
sec-Butylbenzene&1,3-Dichlorobenzene	< DL(U)	7.0
Isopropyltoluene	16.0	3.5
n-Butylbenzene	7.4	3.5
Naphthalene	< DL(U)	3.5

< DL (U) = compound analyzed but not detected B = analyte found in blank
L = estimated value E = exceed calibration range

EXPRESSLAB PO Box 40 5611 Water Street Middlesex NY 14507

Tel: (716) 554-5347 Tel: (800) THE LABS Tel: (800) 843-5227 FAX: (716) 554-4114

SPECIALIZING IN ENVIRONMENTAL SOIL TESTS
NEW YORK STATE LABORATORY #11369

LABORATORY REPORT - METHOD 8270

Cust	GREEN ENVIRON. SPEC.
Address	8335 QUARRY
	NIAGARA FALLS, NY 14304
Attn:	MATT SCHIMPF
Phone	298-5297
FAX	298-5754

PO Number:	MJS-1213
Project Number:	
Project Cust:	SAW-LAN ASSOC.
Project Site:	OLD SHW
Date FAXED:	
Lab Director	

SAMPLE DEMOGRAPHICS AND TEST RESULTS

Results in bold type; Detection Limits in small print
Detection Limits* = Soil=mg/kg ppm
*See Individual Limit

Results shown are: PAH COMPOUNDS
Extraction Method: EPA 3550 Sonication
Analysis Method: EPA 8270 GC/MS

Sample ID (LAB)	20688	
Sample ID#1(CUST)	BOTTOM OF EXCAV.	
Sample ID#2(CUST)	LAN 980915B	
Matrix	SOIL	
Sampled By	J.A. WEHNER	
Date Sampled	09/15/98	9;15
Date Received	09/16/98	09:20
Date Analyzed	09/18/98	
Date Reported	09/21/98	

		Det Limit*(ppm)
Naphthalene	0.318	0.17
Acenaphthylene	< DL	0.17
Acenaphthene	< DL	0.17
Fluorene	0.133J	0.17
Phenanthrene	0.162J	0.17
Anthracene	0.067J	0.17
Fluoranthene	0.074J	0.17
Pyrene	0.068J	0.17
Benzo(a)anthracene	< DL	0.17
Chrysene	< DL	0.17
Benzo(b)fluoranthene	< DL	0.17
Benzo(k)fluoranthene	< DL	0.17
Benzo(a)pyrene	< DL	0.17
Indeno(1,2,3-c,d)pyrene	< DL	0.17
Dibenz(a,h)anthracene	< DL	0.17
Benzo(g,h,i)perylene	< DL	0.17

J=Detected above MDL, but below PQL

Tank Closure Report

New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

ATT: SAL CALANDRA

Attn: Petroleum Bulk Storage Section

Please be advised we will be closing tanks on 9-15-98
We will notify you if this schedule is changed.

Date _____

PBS # _____

Site Name: STOLLBERG Inc

Street: 4111 Witmer Rd.

City: To. of NIAGARA N.Y. 14305

Tanks to be closed:	Tank 1	Tank 2	Tank 3	Tank 4
Size:	2000			
Tank Type:	STEEL			
Product:	DIESEL			
UST or AST:	UST			
Removal or in place?	REMOVAL			

Owner's Name: STOLLBERG Inc

Street: 4111 Witmer Rd

City: To. of NIAGARA NY

Phone: (716) 806 3112

Laboratory Name: LOZIER LABS / EXPRESS LAB

Street: _____

City: _____

Phone: (716) 5293492

Contractor's Name: GREEN ENVIRONMENTAL SPECIALISTS

Street: 8335 QUARRY Rd.

City: NIAGARA FALLS NY. 14304

Phone: (716) 298-5297

ENV. CONSULTANT
LAN ASSOC.

5/93 JIM WEITNER

TOTAL P.02

Soil Disposal



MODERN CORPORATIONS
P.O. BOX 209 MODEL CITY, NEW YORK 14107
LANDFILL SITE - HAROLD © PLETCHER RD.
LEWISTON, NEW YORK

TICKET : 450,91A
DATE IN : 09/25/98 02:43:27
DATE OUT: 09/25/98 03:43:52

TRUCK :499
HAULER :MDS MODERN DISPOSAL
GENERATOR: 8216.051
GREEN ENVIRONMENT SPECIALIST
STOLLBURG
BILL TO : 6153.000
MDS MODERN DISPOSAL
COMMODITY:0000 0000 SOIL AND OIL CLEANUP
GROSS WEIGHT: 77,560.
TARE WEIGHT: 30,180.
NET WEIGHT: 47,380.
TONS: 23.69

HAULER TICKET: TK719556-000

WEIGHMASTER: _____

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: _____



MODERN CORPORATIONS
P.O. BOX 209 MODEL CITY, NEW YORK 14107
LANDFILL SITE - HAROLD © PLETCHER RD.
LEWISTON, NEW YORK

TICKET : 450799
DATE IN : 09/25/98 03:05:08
DATE OUT: 09/25/98 03:05:04

TRUCK :497
HAULER :MDS MODERN DISPOSAL
GENERATOR: 8216.051
GREEN ENVIRONMENT SPECIALIST
STOLLBURG
BILL TO : 6153.000
MDS MODERN DISPOSAL
COMMODITY:0000 0000 SOIL AND OIL CLEANUP
GROSS WEIGHT: 65,180.
TARE WEIGHT: 30,540.
NET WEIGHT: 34,580.
TONS: 17.29

HAULER TICKET: TK719561-000

WEIGHMASTER: _____

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: _____

4746 MODEL CITY ROAD, PO BOX 209
MODEL CITY, NY 14107-0209
1-800-662-0012 716-754-8226
Modern Disposal Services, Inc.

DATE: 09/25/98
SITE TIME IN: 1:00
SITE TIME OUT: 2:15
ROUTE: X012

TRANSACTION #: TK-719561-0
TRUCK #: 497
PREPARED BY: patw
DUMP SITE: MLF MODERN LANDFILL

SERVICE SITE:

2216.051
GREEN ENVIRONMENT SPECIALIST
STOLLBURG
4113 WITMER ROAD
NIAGARA FALLS
G98-0498

Contact: JIM WTMER
Phone : 716/298-5298

COMMODITY: 0800-0000 SOIL AND OIL CLEANUP
TRANSACTION TYPE/STYLE: LOAD ON SITE TA
CONTAINER SIZE: 15.00

CONTAINER # IN: _____
CONTAINER # OUT: _____

Service Code: DUMP TRUCK SERVICE
TONS (G98-0498) CONTAMINATED SOIL (15 TON LIMIT)

DRIVER SIGNATURE

CUSTOMER SIGNATURE

PLEASE NOTE INDEMNIFICATION AGREEMENT

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The customer shall not overload the equipment nor use it for incineration purposes or make alterations without the Contractor's written approval.

CUSTOMER'S COPY

4746 MODEL CITY ROAD, PO BOX 209
MODEL CITY, NY 14107-0209
1-800-662-0012 716-754-8226
Modern Disposal Services, Inc.

DATE: 09/25/98
SITE TIME IN: 700
SITE TIME OUT: 800
ROUTE: X012

TRANSACTION #: TK-719562-0
TRUCK #: 499
PREPARED BY: patw
DUMP SITE: MLF MODERN LANDFILL

SERVICE SITE:

2216.051
GREEN ENVIRONMENT SPECIALIST
STOLLBURG
4113 WITMER ROAD
NIAGARA FALLS

Contact: JIM WTMER
Phone : 716/298-5298

G98-0498

COMMODITY: 0800-0000 SOIL AND OIL CLEANUP
TRANSACTION TYPE/STYLE: LOAD ON SITE TA
CONTAINER SIZE: 15.00

CONTAINER # IN: _____

CONTAINER # OUT: _____

Service Code: DUMP TRUCK SERVICE
TONS (G98-0498) CONTAMINATED SOIL (15 TON LIMIT)

DRIVER SIGNATURE

CUSTOMER SIGNATURE

PLEASE NOTE INDEMNIFICATION AGREEMENT

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment arising out of the Customer's breach of any warranty created hereunder by the Customer. The customer shall not overload the equipment use it for incineration purposes or make alterations without the Contractor's written approval.

CUSTOMER'S COPY

ANGE'S Scrap Iron & Metal, Inc.

2133 MAPLE AVENUE, NIAGARA FALLS, NY 14305
(716) 284-8729

FERROUS & NON FERROUS SCRAP METAL
INDUSTRIAL CONTAINER SERVICE

Driver Off _____ Date 9/19 19 98

M GROOM ENVIRONMENTAL

Address 8335 QUARRY RD

SALE	PURCHASE		
WEIGHT		PRICE	AMOUNT
9540 lb (T)			
8:27 AM 09 19 98 9540 lb (T) 8060 lb TR 1480 lb NET			
TANK 0.74 ea		25	18 50
	TOTAL		18 50

Weighed on Toledo DigiTOL Scale

ChemTrek (800) 424-9300
National Response Center (800) 424-8802
24 Hour Emergency Response Number
Shipper
Transportation Firm: GREEN ENVITONMENT SPEC.

Green Environment Specialists, Inc.
Straight Bill of Lading

Work Order Number: LAN-001A
Date: 9/15/98
Trailer License Number:

Pick Up

Name: STOLLBERG INC.
Street Address: 4111 WITMER RD.
City: TOWN OF NIA. State: NY Zip: 14305
Contact Name: SKIP HUTTON Phone:
Scheduled Time:
Additional Information:

Delivery

Name: IRSI
Street Address: 8335 QUARRY RD.
City: NIAGARA FALLS State: NY Zip: 14305
Contact Name: ~~SKIP HUTTON~~ MATT SCHNARR Phone:
Scheduled Time:
Additional Information:

HM	Proifile Number	Proper Shipping Name / Materials Description	Number of Containers	Weight (Lbs/Kg)	DOT ERG #
NO		decomm. UST FOR SCRAP	1	1000 LBS	

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and state laws and regulations

Pick Up

Arrival Time _____ Release Time _____
Trailer Empty upon Arrival ✓ Yes ___ No
Comments: _____

I certify that all the above listed material was received by the above listed transportation firm without any significant deviation in quantity listed above

Driver Signature _____
Shipper Signature _____ 9/15/98

Delivery

Driver J. A. WEAVER Date 9/15/98
Arrival Time _____ Release Time _____
Trailer Empty upon Departure ___ Yes ___ No
Comments: _____

I certify that all the above listed material was received at the above listed facility without any significant deviation in contents or quantity listed above.

Driver Signature _____
Facility Signature _____

WHITE
1.) Facility Mail To:
Green Environment
P.O. Box 2066NMS
Niagara Falls, NY 14301

GREEN
2.) Facility Copy

CANARY
3.) Transporter Copy

PINK
4.) Shipper's Copy

GOLDENROD
5.) Green Environment

ChemTrek (800) 424-9300
National Response Center (800) 424-8802
24 Hour Emergency Response Number
Shipper
Transportation Firm

Green Environment Specialists, Inc.
Straight Bill of Lading

Work Order Number 9/15/18
Date
Trailer License Number

Pick Up	Delivery
Name: STOLLBERG, INC.	Name: INDUSTRIAL Recycling Spec.
Street Address: 4111 WITMER RD	Street Address: 8335 QUARRY RD.
City: TOWN of NIAGARA State: 14305 Zip	City: NIAGARA FALLS State: NY Zip: 14304
Contact Name: Skip HOTTON Phone	Contact Name: MATT SCHUMPF Phone
Scheduled Time	Scheduled Time
Additional Information	Additional Information

M	Proifile Number	Proper Shipping Name / Materials Description	Number of Containers	Weight (Lbs/Kg)	DOT ERG #
	LAN 980914A	NON-Regulated MATERIAL	1	~~200~~ GA	
				1500 GAL	

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations
l state laws and regulations

ck Up	Delivery
Arrival Time 15[illegible] Release Time 15:50	Driver _____ Date _____
r Empty upon Arrival ✓ Yes ___ No	Arrival Time _____ Release Time _____
ments:	Trailer Empty upon Departure ___ Yes ___ No
ify that all the above listed material was received by the above listed transportation firm without any Scant deviation in quantity listed above.	Comments:
Driver Signature	I certify that all the above listed material was received at the above listed facility without any significant deviation in contents or quantity listed above.
Shipper Signature X	Driver Signature
	Facility Signature

WHITE
1.) Facility Mail To:
Green Environment
F Box 2066NMS
N gara Falls, NY 14301

GREEN
2.) Facility Copy

CANARY
3.) Transporter Copy

PINK
4.) Shipper's Copy

GOLDENROD
5.) Green Environment

Q

Appendix Q

Air Monitoring Results

SLC Constructors, Inc.
295 Mill Street
Lockport, New York 14094

Phone: (716) 433-0776
Fax: (716) 433-0802

LETTER OF TRANSMITTAL

DATE: 02/16/99	JOB NO. 98-027
ATTN: Skip Hutton	
RE:	

TO LAN Associates, Inc.
66 Cuna Street
St. Augustine, FL 32084

WE ARE SENDING YOU ☒ Attached ☐ Under Separate Cover Via _____ The Following Items:

☐ Shop Drawing ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☒ Copy of Letter ☐ Change Order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Air Monitoring Data from SKW Site

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ For Approval ☐ Approved As Submitted ☐ Resubmit _____ Copies For Approved
☐ For Your Use ☐ Approved As Noted ☐ Submit _____ Copies For Distribution
☐ As Requested ☐ Returned For Corrections ☐ Return _____ Corrected Prints
☒ For Review & Comment ☐ _____
☐ FOR BIDS DUE _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS: Call Me If You Have Any Questions

COPY TO: File

SIGNED: Scott Pfohl

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Cloudy

Humidity:

Date: Tues - July 21 1998

UNIT 1	UNIT 2	UNIT 3
Time: 9	Time: 9.00	Time: 90
Wind Direction: Southwest to N.E	Wind Direction: S.W to N.E	Wind Direction: S.W to N.E
Wind Speed: 10 m.p.h	Wind Speed: 10 m.p.h.	Wind Speed: 10 m.p.h.
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non
Location: West on the Fence	Location: Center on Concrete.	Location: Downwind fence
Notes: .19.	Notes: .08	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 11.	Time: 11.	Time: 11
Wind Direction: Southwest to N.E	Wind Direction: S.W to N.E	Wind Direction: S.W to N.E.
Wind Speed: 10 m.p.h	Wind Speed: 10 m.p.h.	Wind Speed: 10 mp.h.
Visible Dust: Non	Visible Dust: Non.	Visible Dust: Non.
Location: West on the Fence.	Location: Center on Concrete	Location: Downwind Fence
Notes: .15	Notes: .07.	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1. P.M.	Time: 1. P.M	Time: 1. P.M.
Wind Direction: S.W. to N.E	Wind Direction: SW to NE.	Wind Direction: S.W to N.E
Wind Speed: 15 mp.h.	Wind Speed: 15 m p.h.	Wind Speed: 15 m p.h.
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non
Location: West on the Fence	Location: Center on Concrete	Location: Downwind fence.
Notes: .19.	Notes: .09.	Notes: .00.

UNIT 1	UNIT 2	UNIT 3
Time: 3	Time: 3.00	Time: 30
Wind Direction: SW to N.E.	Wind Direction: S.W to N.E.	Wind Direction: S.W to N.E
Wind Speed: 10 m.p.h.	Wind Speed: 10 m.p.h.	Wind Speed: 10 m.p.h.
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non
Location: West on the Fence.	Location: Center on Concrete	Location: Down wind Fence
Notes: .16	Notes: .09.	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: HAZY HUMID HOT Date: We 7-22-98

Humidity: HIGH

UNIT 1	UNIT 2	UNIT 3
Time: 9:00	Time: 9:00	Time: 9:00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: STOLLBERG
Location: DOWN WIND	Location: 100 FT	Location: UPWIND
Notes: .08	Notes: .00	Notes: .01

UNIT 1	UNIT 2	UNIT 3
Time: 11:00	Time: 11:00	Time: 11:00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: STOLLBERG DUST
Location: DWN	Location: 100'	Location: UP
Notes: 0.05	Notes: .00	Notes: .01

UNIT 1	UNIT 2	UNIT 3
Time: 100	Time: 100	Time: 100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10 MPH	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: STOLLBERG
Location: DN	Location: 100'	Location: UP
Notes: .04	Notes: .01	Notes: .06

UNIT 1	UNIT 2	UNIT 3
Time: 300	Time: 300	Time: 300
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: STOLLBERG
Location: DWN	Location: 100	Location: UP
Notes: .05	Notes: .00	Notes: .02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: 7 AM RAIN Date: TH 7-23-98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes: RAIN/NO DATA	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 11	Time: 11	Time: 11
Wind Direction: W to E	Wind Direction: W to E.	Wind Direction: W - to E
Wind Speed: 5 to 10.	Wind Speed: 5 to 10.	Wind Speed: 5 to 10 mph
Visible Dust: Non.	Visible Dust: Non	Visible Dust: Non
Location: Fence Downwind	Location: Fence 100 feet	Location: Stockpile
Notes: .00	Notes: .00	Notes: .08

UNIT 1	UNIT 2	UNIT 3
Time: 1	Time: 1	Time: 1
Wind Direction: W to E.	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 10 to 15 mph	Wind Speed: 10 to 15 mph	Wind Speed: 10 to 15 mph
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non.
Location: Fence Downwind	Location: Fence 100 feet	Location: Stockpile
Notes: .06.	Notes: .00	Notes: .95 0

UNIT 1	UNIT 2	UNIT 3
Time: RAIN	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: HAZY AND HOT 90° Date: 7-20-21

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 8:56 A.M	Time: 8.57 A.M	Time: 9:00 A.M.
Wind Direction: W to E.	Wind Direction: W to E	Wind Direction: W to E.
Wind Speed: 5 m.p.h.	Wind Speed: 5 mph	Wind Speed: 5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No.
Location: W E - END ON FENCE	Location: CENTER SITE ON CONC	Location: DOWNWIND ON FENCE
Notes: .00	Notes: .00	Notes: .14

UNIT 1	UNIT 2	UNIT 3
Time: 11:05	Time: 11.08 A.M	Time: 11.13 A.M.
Wind Direction: W to E.	Wind Direction: W to E.	Wind Direction: W to E
Wind Speed: 5 mph.	Wind Speed: 8 m.P.h.	Wind Speed: 8 m P.h.
Visible Dust: Non	Visible Dust: Non.	Visible Dust: Non
Location: West End on Fence	Location: Center site on Conc.	Location: Downwind on Fence
Notes: .01	Notes: .00	Notes: .13

UNIT 1	UNIT 2	UNIT 3
Time: 1.04 P.m	Time: 1. P.m	Time: 12.53 P.m.
Wind Direction: W to E.	Wind Direction: W to E.	Wind Direction: W to E.
Wind Speed: 3 m.p.h.	Wind Speed: 5 m.p.h	Wind Speed: 5 m P.h
Visible Dust: Non	Visible Dust: Non.	Visible Dust: Non
Location: West End on Fence	Location: Center site on Conc	Location: Downwind on Fence
Notes: .00 3 to 1.	Notes: .00	Notes: .01. Large 1 to

UNIT 1	UNIT 2	UNIT 3
Time: 2:00	Time: 2:09	Time: 3-14.
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E.
Wind Speed: 5 m.p.h.	Wind Speed: 5 mph	Wind Speed: 5. m P.h
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non
Location: West End on Fence	Location: Center site on Conc.	Location: Downwind on Fence
Notes: .03	Notes: .00.	Notes: .01

Clear 3 to 1

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: CLEAR LOW HUMID Date: FR 7-24-09

Humidity: LOW

UNIT 1		UNIT 2		UNIT 3	
Time:	9 00 AM	Time:	9 00	Time:	9 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	STOLLBERG
Location:	DN	Location:	100'	Location:	UP
Notes:	.00	Notes:	.00	Notes:	.06

UNIT 1		UNIT 2		UNIT 3	
Time:	30 AM	Time:	11	Time:	
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	STOLLBERG
Location:	DN	Location:	100'	Location:	UP
Notes:	.00	Notes:	.00	Notes:	.02

UNIT 1		UNIT 2		UNIT 3	
Time:	1 00	Time:	100	Time:	100
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	STOLLBERG
Location:	DN	Location:	100'	Location:	UP
Notes:	.00	Notes:	.00	Notes:	.03

UNIT 1		UNIT 2		UNIT 3	
Time:	300	Time:	300	Time:	300
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	DN	Location:	100'	Location:	UP
Notes:	.00	Notes:	.00	Notes:	.02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN 70° Date: MO 7-27-98

Humidity: LOW

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 900
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5 10	Wind Speed: 5 10
Visible Dust: 0	Visible Dust: 0	Visible Dust: STOLBERG
Location: DN	Location: 100'	Location: UP
Notes: .02	Notes: .03	Notes: .06

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 1100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: STOLLBER
Location: DN	Location: 100'	Location: UP
Notes: .02	Notes: .02	Notes: .06

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 100	Time: 100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: STOLLBER
Location: DN	Location: 100'	Location: UP
Notes: .04	Notes: .03	Notes: .07

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 300
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust:	Visible Dust: 0	Visible Dust: STA... DE
Location: DN	Location: 100'	Location: UP
Notes: .04	Notes: .03	Notes: .05

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: CLD/SUN Date: TU 7-28-98

Humidity: HIGH

UNIT 1		UNIT 2		UNIT 3	
Time:	9 00	Time:	9 00	Time:	9 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	S.W
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NON	Visible Dust:	NONE	Visible Dust:	NONE
Location:	DN	Location:	100'	Location:	UP
Notes:	.05	Notes:	.00	Notes:	.13

UNIT 1		UNIT 2		UNIT 3	
Time:	11 00	Time:	11 00	Time:	11 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NONE	Visible Dust:	NONE	Visible Dust:	NONE
Location:	DN	Location:	100'	Location:	UP
Notes:	.05	Notes:	.00	Notes:	.13

UNIT 1		UNIT 2		UNIT 3	
Time:	1 00	Time:	1 00	Time:	1 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NONE	Visible Dust:	NONE	Visible Dust:	NONE
Location:	DN	Location:	100'	Location:	UP
Notes:	.05	Notes:	.00	Notes:	.54

UNIT 1		UNIT 2		UNIT 3	
Time:	3 00	Time:	300	Time:	300
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5-15	Wind Speed:	5-15	Wind Speed:	5-15
Visible Dust:	NONE	Visible Dust:	NONE	Visible Dust:	NONE
Location:	DN	Location:	100'	Location:	UP
Notes:	.06	Notes:	.00	Notes:	.78

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Clear. / Sun. Date: 7.29.1998.

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9 AM.	Time: 9 AM	Time: 9 A.M.
Wind Direction: W. to E.	Wind Direction: W to E	Wind Direction: W. to E.
Wind Speed: 5 m.p.h.	Wind Speed: 5 m.p.h.	Wind Speed: 5. m. p. h.
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non.
Location: Up-Wind.	Location: 100 feet	Location: Down-Wind.
Notes: .00	Notes: .00.	Notes: .05

UNIT 1	UNIT 2	UNIT 3
Time: 11 Am.	Time: 11 Am.	Time: 11 Am.
Wind Direction: W to E	Wind Direction: W to E.	Wind Direction: W to E.
Wind Speed: 5 to 10 mph.	Wind Speed: 5 to 10 mph.	Wind Speed: 5 to 10 mph
Visible Dust: Non.	Visible Dust: Non	Visible Dust: Non.
Location: Up wind.	Location: 100 feet	Location: Down-wind.
Notes: .00	Notes: .00	Notes: .05

UNIT 1	UNIT 2	UNIT 3
Time: 1 P.m	Time: 1 P. m	Time: 1 P. M
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E.
Wind Speed: 5 mph.	Wind Speed: 5 mph.	Wind Speed: 5 m.p.h
Visible Dust: Non.	Visible Dust: Non.	Visible Dust: Non.
Location: Up wind	Location: 100 feet.	Location: Down wind.
Notes: .00	Notes: .00	Notes: .05

UNIT 1	UNIT 2	UNIT 3
Time: 3 P m	Time: 3. P. M	Time: 3. P m
Wind Direction: W to E.	Wind Direction: W to E	Wind Direction: W. to E
Wind Speed: 5 mph	Wind Speed: 5 mph	Wind Speed: 5 mph.
Visible Dust: Non.	Visible Dust: Non	Visible Dust: Non.
Location: Up wind.	Location: 100 feet	Location: Down wind.
Notes: .03	Notes: .00	Notes: .04.

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Cld / Rain Date: 7.30.1998

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9 Am	Time: 9AM..	Time: 9. Am.
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 5 mph	Wind Speed: 5 mph	Wind Speed: 5 m.p.h.
Visible Dust: Non	Visible Dust: Non	Visible Dust: Non.
Location:	Location:	Location: Up Wind
Notes:	Notes:	Notes: .15

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN Date: FR 7-31-98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 900
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: NONE
Location: UP	Location: 100	Location: DN
Notes: .02	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 1100
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: NONE
Location: UP	Location: 100	Location: DN
Notes: .01	Notes: .00	Notes: .05

UNIT 1	UNIT 2	UNIT 3
Time: 100	Time: 100	Time: 100
Wind Direction: NW	Wind Direction: NW	Wind Direction: NW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: NONE
Location: UP	Location: 100	Location: DN
Notes: .02	Notes: .01	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 300	Time: 300
Wind Direction: NW	Wind Direction: NW	Wind Direction: NW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NONE	Visible Dust: NONE	Visible Dust: NONE
Location: UP	Location: 100	Location: DN
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN 80° HAZY HUMID Date: MO 8-3-98

Humidity:

UNIT 1		UNIT 2		UNIT 3	
Time:	9 00	Time:	9 00	Time:	9 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0 5	Wind Speed:	0 5	Wind Speed:	0 - 5
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100	Location:	DN
Notes:	.00	Notes:	.02	Notes:	.00

UNIT 1		UNIT 2		UNIT 3	
Time:	11 00	Time:	11 00	Time:	11 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100	Location:	DN
Notes:	.01	Notes:	.01	Notes:	.00

UNIT 1		UNIT 2		UNIT 3	
Time:	1 00	Time:	1 00	Time:	100
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5 - 10	Wind Speed:	5-10	Wind Speed:	5 - 10
Visible Dust:	~~HA~~ STOLBERG	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100	Location:	DN
Notes:	.00	Notes:	.01	Notes:	.05

UNIT 1		UNIT 2		UNIT 3	
Time:	3 00	Time:	300	Time:	300
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5 - 10	Wind Speed:	5 - 10	Wind Speed:	5 - 10
Visible Dust:	STOLL BERG	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100	Location:	DN
Notes:	.00	Notes:	.01	Notes:	.09

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: 55° SUN Date: TUE 8-4-98

Humidity: HIGH

UNIT 1		UNIT 2		UNIT 3	
Time:	900	Time:	900	Time:	900
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5-10	Wind Speed:	5-10	Wind Speed:	5-10
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100'	Location:	DN
Notes:	.00	Notes:	.06	Notes:	.05

UNIT 1		UNIT 2		UNIT 3	
Time:	1100	Time:	1100	Time:	1100
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5-10	Wind Speed:	5-10	Wind Speed:	5-10
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100	Location:	DN
Notes:	STOLBERG .19	Notes:	.00	Notes:	.02

UNIT 1		UNIT 2		UNIT 3	
Time:	100	Time:	100	Time:	100
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5-10	Wind Speed:	5-10	Wind Speed:	5-10
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100'	Location:	DN
Notes:	STOLBERG .03	Notes:	.00	Notes:	.02

UNIT 1		UNIT 2		UNIT 3	
Time:	300	Time:	300	Time:	300
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	5-10	Wind Speed:	5-10	Wind Speed:	5-10
Visible Dust:	NA	Visible Dust:	NA	Visible Dust:	NA
Location:	UP	Location:	100'	Location:	DN
Notes:	STOLBERG .10	Notes:	.02	Notes:	.02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: WET / RAIN Date: WED 8/5

Humidity: HIGH

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: RAIN ALL DAY - NO MONITORS Date: THS-6-98

Humidity: 100%

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: (CL) 70's Date: FEB 7-7-17

Humidity: 70's

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: SE	Wind Direction: SE	Wind Direction: SE
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: NA	Visible Dust: NA	Visible Dust: NA
Location: DN (STOCKPILE AREA)	Location: 100'	Location: UP
Notes: .10	Notes: .03	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1100	Time: 1100	Time: 1100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: NA	Visible Dust: NA	Visible Dust: NA
Location: DN	Location: 100'	Location: UP
Notes: .11	Notes: .02	Notes: .07

UNIT 1	UNIT 2	UNIT 3
Time: 1300	Time: 1300	Time: 1300
Wind Direction: S	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: NA	Visible Dust: NA	Visible Dust: NA
Location: DN	Location: 100'	Location: UP
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 1500	Time: 1500	Time: 1500
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: CLDY Date: MON 8-10-98

Humidity: HIGH Rain afternoon.

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: 100'	Location: DN
Notes: .14	Notes: .00	Notes: .06

UNIT 1	UNIT 2	UNIT 3
Time: 1100	Time: 1100	Time: 1100
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: 100'	Location: DN
Notes: .12	Notes: .02	Notes: .08

UNIT 1	UNIT 2	UNIT 3
Time: 100	Time: 100	Time: 100
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: 100'	Location: DN
Notes: .59	Notes: .03	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 300	Time: 300	Time: 300
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: 100	Location: DN
Notes: 1.36	Notes: .03	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN COOLER Date: TU 8-11-98

Humidity: LOWER

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: OFFSITE DUST	Visible Dust: O	Visible Dust: O
Location: UP	Location: 100	Location: DN
Notes: .08	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: OFF SITE DUST	Visible Dust: O	Visible Dust: O
Location: UP	Location: 100	Location: DN
Notes: .11	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: OFFSITE	Visible Dust: O	Visible Dust: O
Location: UP	Location: 100	Location: DN
Notes: .02	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 2 00	Time: 300	Time: 300
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: OFFSITE	Visible Dust: O	Visible Dust: O
Location: UP	Location: 100	Location: DN
Notes: .01	Notes: .00	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN 65° Date: WE 8-12-98

Humidity: +

UNIT 1		UNIT 2		UNIT 3	
Time:	9 00	Time:	9 00	Time:	9 00
Wind Direction:	0	Wind Direction:	0	Wind Direction:	0
Wind Speed:	0	Wind Speed:	0	Wind Speed:	0
Visible Dust:	0	Visible Dust:	0	Visible Dust:	0
Location:	UP	Location:	100'	Location:	DN
Notes:	0.01	Notes:	.00	Notes:	.00

UNIT 1		UNIT 2		UNIT 3	
Time:	11 00	Time:	11 00	Time:	11 00
Wind Direction:	0	Wind Direction:	0	Wind Direction:	0
Wind Speed:	0	Wind Speed:	0	Wind Speed:	0
Visible Dust:	OFF SITE	Visible Dust:	0	Visible Dust:	0
Location:	UP	Location:	100'	Location:	DN
Notes:	0.11	Notes:	.00	Notes:	.01

UNIT 1		UNIT 2		UNIT 3	
Time:	1 00	Time:	1 00	Time:	1 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	OFF SITE	Visible Dust:	0	Visible Dust:	0
Location:	UP	Location:	100'	Location:	DN
Notes:	.03	Notes:	.02	Notes:	.01

UNIT 1		UNIT 2		UNIT 3	
Time:	3 00	Time:	3 00	Time:	3 00
Wind Direction:	SW	Wind Direction:	SW	Wind Direction:	SW
Wind Speed:	0-5	Wind Speed:	0-5	Wind Speed:	0-5
Visible Dust:	OFF SITE	Visible Dust:	0	Visible Dust:	0
Location:	UP	Location:	100'	Location:	DN
Notes:	.04	Notes:	.02	Notes:	.02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: CLR 75°

Humidity: 0

Date: [illegible]

UNIT 1	UNIT 2	UNIT 3
Time: 9 CC	Time: 900	Time: 900
Wind Direction: [illegible]	Wind Direction: SE	Wind Direction: SE
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: [illegible]	Visible Dust: [illegible]	Visible Dust: [illegible]
Location: [illegible]	Location: [illegible]	Location: [illegible]
Notes: 0.01	Notes: 0.03	Notes: 0.00

UNIT 1	UNIT 2	UNIT 3
Time: 11 CC	Time: 11 CC	Time: 11 CC
Wind Direction: SE	Wind Direction: [illegible]	Wind Direction: SE
Wind Speed: 0-5	Wind Speed: [illegible]	Wind Speed: 0-5
Visible Dust: [illegible]	Visible Dust: [illegible]	Visible Dust: 0
Location: [illegible]	Location: [illegible]	Location: [illegible]
Notes: 0.01	Notes: 0.04	Notes: 0.01

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: [illegible]-5	Wind Direction: [illegible]-5	Wind Direction: [illegible]
Wind Speed: 5	Wind Speed: 5	Wind Speed: 5
Visible Dust: 0	Visible Dust: [illegible]	Visible Dust: 0
Location: [illegible] UP	Location: [illegible]	Location: [illegible]
Notes: [illegible]	Notes: 0.02	Notes: 0.01

UNIT 1	UNIT 2	UNIT 3
Time: 200	Time: [illegible]	Time: [illegible]
Wind Direction: [illegible]-5	Wind Direction: [illegible]	Wind Direction: [illegible]
Wind Speed: [illegible]	Wind Speed: [illegible]	Wind Speed: [illegible]
Visible Dust: [illegible]	Visible Dust: [illegible]	Visible Dust: [illegible]
Location: [illegible]	Location: [illegible]	Location: [illegible]
Notes: 0.00	Notes: 0.00	Notes: 0.01

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: HAZY, HOT 95°C Date: FR 8-14-98

Humidity: A

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: 100'	Location: TN
Notes: .00	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: 100'	Location: DN
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN Date: 6/18/98

Humidity: LOW

UNIT 1	UNIT 2	UNIT 3
Time: 1130	Time: 1130	Time: 1130
Wind Direction: NE	Wind Direction: NE	Wind Direction: NE
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: UW	Location: DW
Notes: RAW/DUMP .00	Notes: RAW/DUMP .00	Notes: DUMP .00

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN 65° CLEAR Date: WE 8-19-9[illegible]

Humidity: ↓

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: NE	Wind Direction: NE	Wind Direction: NE
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: 100	Location: UP
Notes: .00	Notes: .00	Notes: .09

UNIT 1	UNIT 2	UNIT 3
Time: 1100	Time: 1100	Time: 1100
Wind Direction: NE	Wind Direction: NE	Wind Direction: NE
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 05
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: 100	Location: UP
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 100	Time: 100	Time: 100
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 5-0	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: 100	Location: UP
Notes: 00	Notes: 00	Notes: 00

UNIT 1	UNIT 2	UNIT 3
Time: 300	Time: 300	Time: 3[illegible]
Wind Direction: W	Wind Direction: W	Wind Direction: W
Wind Speed: 05	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: 100	Location: UP
Notes: 00 0	Notes: 00	Notes: 00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Sunny 75° Date: 8/20/98

Humidity: Low

UNIT 1	UNIT 2	UNIT 3
Time: 1020	Time: 1020	Time: 1020
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WA	Location: DN
Notes: .00	Notes: .00	Notes: .02
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 1230	Time: 1230	Time: 1230
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WA	Location: DN
Notes: .03	Notes: .01	Notes: .02
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 230	Time: 230	Time: 230
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WA	Location: DN
Notes: .02	Notes: .00	Notes: .00
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 430	Time: 430	Time: 430
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust:	Visible Dust:	Visible Dust:
Location: UP	Location: WA	Location: DN
Notes: .12	Notes: .00	Notes: .01

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN Date: 8-21-98

Humidity: MED

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 0 5	Wind Speed: 0 -5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: UP
Notes: .10	Notes: 00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: NW	Wind Direction: N	Wind Direction: N
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: UP
Notes: .09	Notes: .00	Notes: 00

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 7.0	Visible Dust:	Visible Dust: .00
Location:	Location:	Location:
Notes: .06	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 300	Time: 300	Time: 300
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed: 0-5
Visible Dust:	Visible Dust:	Visible Dust: 0
Location:	Location:	Location:
Notes: .05	Notes: .00	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Rain / A.M. Sunny Date: 8/22/95

Humidity: Wet

UNIT 1	UNIT 2	UNIT 3
Time: 10⁰⁰	Time: 10⁰⁰	Time: 10⁰⁰
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: UP	Location: WA	Location: DN
Notes: .02	Notes: .01	Notes: .01
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 12:10	Time: 12:10	Time: 12:10
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: NO	Visible Dust: NO	Visible Dust: NO
Location: UP	Location: WA	Location: DN
Notes: .01	Notes: .00	Notes: .00
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 2³⁰	Time: 2³⁰	Time: 2³⁰
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: —	Visible Dust: —	Visible Dust: NO
Location: UP	Location: WA	Location: DN
Notes: .06	Notes: .00	Notes: .01
UNIT 1	**UNIT 2**	**UNIT 3**
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN

Humidity: ↑

Date: 8:24:98

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 10-20	Wind Speed: 10-20	Wind Speed: 10-20
Visible Dust: YES	Visible Dust: YES	Visible Dust: YES
Location: UF	Location: WK AREA	Location: DN
Notes: .10	Notes: .07	Notes: .11
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 10-20	Wind Speed: 10-2	Wind Speed: 10-20
Visible Dust: YES	Visible Dust: YES	Visible Dust: YES
Location:	Location: WK AREA	Location: DN
Notes: .1	Notes: .0C	Notes: .10
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 10-25	Wind Speed: 10-20	Wind Speed:
Visible Dust: YES	Visible Dust: YES	Visible Dust:
Location: UF	Location: WK AREA	Location: DN
Notes: .21	Notes: .0E	Notes: .1C
UNIT 1	**UNIT 2**	**UNIT 3**
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: HEAVY RAIN OVER NITE-CLDY BREEZE Date: 8/25/98

Humidity: MED

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: UP
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: UP
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 100	Time: 100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location:	Location: UP
Notes: .02	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: UP
Notes: .00	Notes: .00	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN 75 Date: 8/25/98

Humidity: ↓

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 0-10	Wind Speed: 0-10	Wind Speed: 0-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 0-10	Wind Speed: 0-10	Wind Speed: 0-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 0-10	Wind Speed: 0-10	Wind Speed: 0-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .00	Notes: .03

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: N	Wind Direction: N	Wind Direction: N
Wind Speed: 0-10	Wind Speed: 0-10	Wind Speed: 0-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .00	Notes: .02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN 80°

Humidity: 4

Date: 8.27.98

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0 5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: IN
Notes: .00	Notes: .01	Notes: .10

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: IN
Notes: .02	Notes: .02	Notes: .03

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: IN
Notes: .01	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 2 00	Time: 3 00	Time: 3 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: IN
Notes: .00	Notes: .00	Notes: .00

5 00 5 00 5 00

NOTES .02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN

Humidity: ↑

Date: 8/28/98

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .01	Notes: .03
UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .02	Notes: .01	Notes: .03
UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .05	Notes: .01

5 00 .02 5 00 5 00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN BREEZE 70° Date: 8/31/98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: ~~0~~ NW	Wind Direction: NW	Wind Direction: NW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: ~~0~~ WK AREA	Location: DN
Notes: .00	Notes: .01	Notes: .07
UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: NW	Wind Direction: NW	Wind Direction: NW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .04	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: NW	Wind Direction: NW	Wind Direction: NW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .03	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: NW	Wind Direction: NW	Wind Direction: NW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .02	Notes: .04	Notes: .00

5 00 5 00 5 00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN

Humidity: 4

Date: 9/17-98

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust:	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: DN
Notes: .01	Notes: .00	Notes: .01

UNIT 1	UNIT 2	UNIT 3
Time: 1100	Time: 1100	Time: 1100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust:	Visible Dust: 0	Visible Dust: 0
Location:	Location: WK AREA	Location: DN
Notes:	Notes: .02	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1	Time: 1	Time: 1
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust:	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: DN
Notes:	Notes: .03	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 3	Time: 3	Time: 3
Wind Direction: SW	Wind Direction:	Wind Direction: SW
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: DN	Location: WK AREA	Location: DN
Notes: .02	Notes: .02	Notes: .03

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: RAIN 7:00 AM – 10:00 AM Date: 9-2-98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: NO READINGS	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: O	Visible Dust: O	Visible Dust: O
Location: UP	Location: WK AREA	Location: DN
Notes: 0.00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: C	Visible Dust: C	Visible Dust: C
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .01	Notes: .01

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: C	Visible Dust: C	Visible Dust: C
Location: UP	Location: WK AREA	Location: DN
Notes: 00	Notes: .00	Notes: 00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN Date: 9.3 98

Humidity: ↓

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: DN	Location: DN
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1100	Time: 1100	Time: 1100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 100	Time: 100	Time: 100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .00	Notes: .02

UNIT 1	UNIT 2	UNIT 3
Time: 300	Time: 300	Time: 300
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .02	Notes: 02

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN Date: 9-4-98

Humidity: V

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 900	Time: 9 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-10	Wind Speed: 0-10	Wind Speed: 0-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .03	Notes: .00	Notes: .02

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .02	Notes: .00	Notes: .03

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .06	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 300	Time: 300
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .01	Notes: .00	Notes: .03

500 .00 500 .00 500 .06

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN

Humidity: ?

Date: 9-5-98

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: 0-5	Wind Direction: 0-5	Wind Direction: 0-5
Wind Speed: 5	Wind Speed: 5	Wind Speed: 5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: S	Wind Direction: S	Wind Direction: S
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 5-10	Wind Speed: 5-10	Wind Speed: 5-10
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .00	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: CLD COOL Date: 9/10/98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 900	Time: 900	Time: 900
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN WIND
Notes: .02	Notes: .03	Notes: .01
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 1100	Time: 1100	Time: 1100
Wind Direction: 10-15	Wind Direction: 10-15	Wind Direction: 10-15
Wind Speed: SW	Wind Speed: SW	Wind Speed: SW
Visible Dust: YES	Visible Dust: SOME	Visible Dust: YES
Location: UP	Location: WK AREA	Location: DN WIND
Notes: .10	Notes: .05	Notes: .04
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 100	Time: 100	Time: 100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: ?	Visible Dust: ?	Visible Dust: ?
Location: UP	Location: WK AREA	Location: DN
Notes: .15	Notes: .02	Notes: .04
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 300	Time: 300	Time: 300
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-15	Wind Speed: 10-15	Wind Speed: 10-15
Visible Dust: YES	Visible Dust: YES	Visible Dust: YES
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .01	Notes: .03

500

NEW MONITORS

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN Date: 9/11/98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9.00	Time: 9.00	Time: 9.00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .02	Notes: .02	Notes: .00
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 11P00	Time: 11:00	Time: 11:00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .01	Notes: .10
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 1:00	Time: 1:00	Time: 100
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: 0	Visible Dust: 0
Location: UP	Location: WK AREA	Location: DN
Notes: .00	Notes: .02	Notes: .07
UNIT 1	**UNIT 2**	**UNIT 3**
Time: 3:00	Time: 3:00	Time: 3:00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5	Wind Speed: 0-5	Wind Speed: 0-5
Visible Dust: 0	Visible Dust: WK AREA	Visible Dust: DN
Location:	Location:	Location:
Notes: .00	Notes: .01	Notes: .04

5:00 .02 5:00 .02 5:00 .04

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: SUN - WIND HOT Date: 9/12/98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9 00	Time: 9 00	Time: 9 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-20	Wind Speed: 10-20	Wind Speed: 10-20
Visible Dust: YES	Visible Dust: YES	Visible Dust: YES
Location: DN	Location: WK AREA 1	Location: WK AREA 2
Notes: .11	Notes: .10	Notes: .07

UNIT 1	UNIT 2	UNIT 3
Time: 11 00	Time: 11 00	Time: 11 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-20	Wind Speed: 10-20	Wind Speed: 10-20
Visible Dust: YES	Visible Dust: YES	Visible Dust: YES
Location: DN	Location: WK AREA 1	Location: WK AREA 2
Notes: .09	Notes: .11	Notes: .08

UNIT 1	UNIT 2	UNIT 3
Time: 1 00	Time: 1 00	Time: 1 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-20	Wind Speed: 10-20	Wind Speed: 10-20
Visible Dust: NO	Visible Dust: YES	Visible Dust: YES
Location: DN	Location: WK AREA 1	Location: WK AREA 2
Notes: .10	Notes: .10	Notes: .07

UNIT 1	UNIT 2	UNIT 3
Time: 3 00	Time: 3 00	Time: 3 00
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 10-20	Wind Speed: 10-20	Wind Speed: 10-20
Visible Dust: NO	Visible Dust: YES	Visible Dust: YES
Location: DN	Location: WK AREA 1	Location: WK AREA 2
Notes: .12	Notes: .11	Notes: .10

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Sunny - Warm - No Wind Date: 9/14/98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 9⁰⁰	Time: 9⁰⁰	Time: 9⁰⁰
Wind Direction: —	Wind Direction: —	Wind Direction: —
Wind Speed: —	Wind Speed: —	Wind Speed: —
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Front Gate	Location: Outside Trailer	Location: Pipe Work Area
Notes: .00	Notes: .14	Notes: .31
UNIT 1	UNIT 2	UNIT 3
Time: 11⁰⁰	Time: 11⁰⁰	Time: 11⁰⁰
Wind Direction: SW	Wind Direction: SW	Wind Direction: SW
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Front Gate	Location: outside Trailer	Location: P.D.C Work Area
Notes: .01	Notes: .14	Notes: .33
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction: DEAD	Wind Direction:
Wind Speed:	Wind Speed: BATTERIES	Wind Speed:
Visible Dust:	Visible Dust: ABOVE	Visible Dust:
Location:	Location: INST. CONSIDERED	Location:
Notes:	Notes: INACCURATE	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = WARM, SUNNY, CALM Date: 9-15-98

~~Humidity~~ PM = " , CLOUDIER, WINDYER

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

ALL MONITORS WERE NOT CHARGED FROM LAST NITE

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

AIR MONITORING DATA

M, Cloudy 50°

M, Sunny 50°

Date: 9-16-98

	UNIT	UNIT 3
	Time: 0930	Time:
	Wind Direction:	Wind Direction:
	Wind Speed:	Wind Speed:
	Visible Dust: No	Visible Dust:
	Location: SOUTH FENCE (SW)	Location:
	Notes: .43	Notes:

	UNIT	UNIT 3
	Time:	Time:
	Wind Direction:	Wind Direction:
	Wind Speed:	Wind Speed:
	Visible Dust:	Visible Dust:
	Location:	Location:
	Notes:	Notes:

	UNIT 1	UNIT 3
	Time: 3:30 PM	Time: 3:30 PM
	Wind Direction: SE	Wind Direction: SE
	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
	Visible Dust: No	Visible Dust: No
	Location: edge of Property	Location: NE Property Line
	Notes: .21	Notes: .14

	UNIT 1	UNIT 3
	Time: 5:00 PM	Time: 5:00 PM
	Wind Direction: NE	Wind Direction: NE
	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
	Visible Dust: No	Visible Dust: No
	Location: Edge of Property	Location: NE Property Line
	Notes: .21	Notes: .11

UNITS WILL BE CLEANED TIE!

Art 9-16-98

Air Monitoring

Avg wind 093.0 .43 South Fence,
0945 .07 Terex — North End
of road

reading was .38 1100 hrs South Fence
.11 1105 hrs Terex

Instrument removed up wind replace the one down wind.

none of the readings seem accurate — humidity and dirty instrument?

ALL UNITS WERE CLEANED & CALIBRATED

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Calm Sunny Warm 70° Date: 9-17-98

Humidity: PM = " " Hot - 80°

UNIT 1	UNIT 2	UNIT 3
Time: 0930	Time: 0930	Time: 0930
Wind Direction: —	Wind Direction: —	Wind Direction: —
Wind Speed: —	Wind Speed: —	Wind Speed: —
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: SW Property Line	Location: Middle of Site	Location: NE Prop Line
Notes: .01	Notes: .04	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 4^00 pm	Time: 4^00 pm	Time: 4^00
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-5 mph	Wind Speed: 0 5 mph	Wind Speed: 0-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: SW Property Line	Location: Middle of Site	Location: NE Prop Line
Notes: .04	Notes: .06	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 5^00	Time: 5^00	Time: 5^00
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: SW Prop Line	Location: Middle of Site	Location: NE Prop Line
Notes: .04	Notes: .05	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

NORTHEAST CORNER OF SITE

- AIR MONITORS WERE IN SKW OFFICE CHARGING

SKW Alloys, Inc.

AIR MONITORING DATA

(No Wind All Day)

Weather Conditions: AM = CALM, SUNNY, HOT ≈ 70° Date: 9-18-98

Humidity: PM = " " " = 85°

UNIT 1	UNIT 2	UNIT 3
Time: 11:00 AM	Time:	Time:
Wind Direction: —	Wind Direction:	Wind Direction:
Wind Speed: —	Wind Speed:	Wind Speed:
Visible Dust: No	Visible Dust:	Visible Dust:
Location: NE. CORNER	Location:	Location:
Notes: .04	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 2:00 PM	Time:	Time:
Wind Direction: —	Wind Direction:	Wind Direction:
Wind Speed: —	Wind Speed:	Wind Speed:
Visible Dust: —	Visible Dust:	Visible Dust:
Location: NE CORNER	Location:	Location:
Notes: .04	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 4:00	Time:	Time:
Wind Direction: —	Wind Direction:	Wind Direction:
Wind Speed: —	Wind Speed:	Wind Speed:
Visible Dust: No	Visible Dust:	Visible Dust:
Location: NE CORNER	Location:	Location:
Notes: .04	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

* All Monitors were used For End-Of-Hours Per MANUEL

SKW Alloys, Inc.

- Monitors Were All Off @ 4:00 pm

AIR MONITORING DATA

Weather Conditions: AM = Partly Sunny, Warm, Lite Wind ≈ 6-5° Date: Monday 9-21-09

~~Humidity~~: PM = " Cloudy, " " " ≈ 75°

UNIT 1	UNIT 2	UNIT 3
Time: 8:30 AM	Time: 8:30 AM	Time: 8:30 AM
Wind Direction: SW to NE	Wind Direction: SW to NE	Wind Direction: SW to NE
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: SE Prop. Line	Location: Middle Of Site	Location: NE Prop. Corner
Notes: .05	Notes: .03	Notes: .03

UNIT 1	UNIT 2	UNIT 3
Time: 2:30	Time: 2:30	Time: 2:30
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: SLIGHT	Visible Dust: SLIGHT	Visible Dust: SLIGHT
Location: SE Prop. Corner	Location: Middle Of Site	Location: NE Prop Line
Notes: .05	Notes: .03	Notes: .03

UNIT 1	UNIT 2	UNIT 3
Time: 4:00	Time: 4:00	Time: 4:00
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: SE Prop Corner	Location: Middle Of Site	Location: NE. Prop Line
Notes: .06	Notes: .04	Notes: .07

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Cloudy Calm Cool = 60° Date: 9-22-98

~~Humidity:~~ PM = " " " = 60°

UNIT 1	UNIT 2	UNIT 3
Time: 7:30 AM	Time: 7:30 AM	Time: 7:30 AM
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Near Decon Pad	Location: Middle of Site	Location: Middle of NE Prop. Line
Notes: .07	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 10:00	Time: 10:00	Time: 10:00
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Near Decon Pad	Location: Middle of Site	Location: Middle of NE Prop. Line
Notes: .07	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1:00 pm	Time: 1:00	Time: 1:00
Wind Direction: NE to SW	Wind Direction: NE to SW	Wind Direction: NE to SW
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Near Decon Pad	Location: Middle of Site	Location: Middle of NE Prop Line
Notes: .08	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 4:00	Time: 4:00	Time: 4:00
Wind Direction: NE to SW	Wind Direction: NE To SW	Wind Direction: NE to SW
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Near Decon Pad	Location: Middle of Site.	Location: Middle of NE Prop
Notes: .08	Notes: .01	Notes: .00

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Sunny, Calm, Cool = 50° Date: WED 9-23-98

Humidity: PM = " , Wind " = 60°

UNIT 1	UNIT 2	UNIT 3
Time: 7 30	Time: 7 35	Time: 7 30
Wind Direction: N to S	Wind Direction: N to S	Wind Direction: N to S
Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Near Decon Pad	Location: Middle of Site	Location: Middle of NE Prop Line
Notes: .07	Notes: .05	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 1 30	Time: 1 30	Time: 1 30
Wind Direction: N to S	Wind Direction: N to S	Wind Direction: N to S
Wind Speed: 3 - 5 mph	Wind Speed: 3 - 5 mph	Wind Speed: 3 - 5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Near Decon Pad	Location: Middle of Site	Location: Middle of NE Prop L
Notes: .08	Notes: .06	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 4 00	Time: 4 00	Time: 4 00
Wind Direction: N to S	Wind Direction: N to S	Wind Direction: N to S
Wind Speed: 3 - 5 mph	Wind Speed: 3 - 5 mph	Wind Speed: 3 - 5 mph
Visible Dust: Slightly	Visible Dust: Slightly	Visible Dust: Slightly
Location: Near Decon Pad	Location: Middle of Site	Location: Middle of NE Prop Line
Notes: .07	Notes: .07	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Sunny, Calm, Cool = 55° Date: Thur 9-24-98

Humidity: PM = Cloudy, Mild Wind, Cool = 60°

UNIT 1	UNIT 2	UNIT 3
Time: 7:30	Time: 7:30	Time: 7:35
Wind Direction: —	Wind Direction: —	Wind Direction: —
Wind Speed: —	Wind Speed: —	Wind Speed: —
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Middle of Site	Location: Middle of NE Prop Line	Location: Middle of Cut Off Wall
Notes: .09	Notes: .00	Notes: .01

UNIT 1	UNIT 2	UNIT 3
Time: 10:30	Time: 10:30	Time: 10:35
Wind Direction: S to N	Wind Direction: S to N	Wind Direction: S to N
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Middle of Site.	Location: Middle of NE Prop. Line	Location: Middle of Cut Off Wall
Notes: .09	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 1:00	Time: 1:00	Time: 1:00
Wind Direction: N to S	Wind Direction: N to S	Wind Direction: N to S
Wind Speed: 3-5 mph	Wind Speed: 3-5 mph	Wind Speed: 3-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Middle of Site	Location: Middle of NE Prop Line	Location: Middle of Cut off Wall
Notes: .09	Notes: .00	Notes: .07

UNIT 1	UNIT 2	UNIT 3
Time: 4:00	Time: 4:00	Time: 4:00
Wind Direction: N to S	Wind Direction: N to S	Wind Direction: N to S
Wind Speed: 3-5 mph	Wind Speed: 3-5 mph	Wind Speed: 3-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Middle of Site	Location: Middle of NE Prop Line	Location: Middle of Cut Off Wall
Notes: .14	Notes: .01	Notes: .10

for Rest of Day
- Day Forecast To Continue Air Monitoring

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Cloudy, Cool, Slight Wind = SE Date: Fri 9-25-98

Humidity: PM = " " Calm

UNIT 1	UNIT 2	UNIT 3
Time: 8:00	Time: 8:00	Time:
Wind Direction: SW to NE	Wind Direction: SW to NE	Wind Direction:
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: Middle of Site	Location: Middle of Cutoff Wall	Location:
Notes: .00	Notes: .01	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

For Rest of Day
- Day Forecast To Continue Air Monitoring

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Cloudy Cool Slight Wind = SE Date: Fri 9-25-98

Humidity: PM = " " Calm

UNIT 1	UNIT 2	UNIT 3
Time: 8:00	Time: 8:00	Time:
Wind Direction: SW to NE	Wind Direction: SW to NE	Wind Direction:
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: Middle of Site	Location: Middle of Cutoff Wall	Location:
Notes: .00	Notes: .01	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

Heavy Rain Sunday
Will Left Little Silt
Have to do Monday

Heavy Rain Monday
Work Changing Due to
Not Being Picked up
Today afternoon

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: Calm Cool Sunny ≈ 60° Date: Tuesday 9-29-98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 730	Time: 730	Time:
Wind Direction: SW to NE	Wind Direction: SW to NE	Wind Direction:
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed:
Visible Dust: No	Visible Dust: No	Visible Dust:
Location: Middle of Cut Off Wall	Location: Entrance Gate	Location:
Notes: .00	Notes: .09	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 1000	Time: 1000	Time:
Wind Direction: SW to NE	Wind Direction: SW to NE	Wind Direction:
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed:
Visible Dust: No	Visible Dust: No	Visible Dust:
Location: Middle of Cut Off Wall A	Location: Entrance Gate	Location:
Notes: .00	Notes: .04	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 500	Time: 500	Time:
Wind Direction: SW to NE	Wind Direction: SW to NE	Wind Direction:
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed:
Visible Dust: No	Visible Dust: No	Visible Dust:
Location: Middle of Cut Off Wall A	Location: Entrance Gate	Location:
Notes: .00	Notes: .04	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

2 of 3 Monitors working properly — Also working in Lift areas

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Sunny, Warm, Calm = 60° Date: WED 9.30.92

Humidity: PM = " " " ≈ 70°

UNIT 1	UNIT 2	UNIT 3
Time: 8⁰⁰	Time: 8⁰⁰	Time:
Wind Direction: —	Wind Direction: —	Wind Direction:
Wind Speed: —	Wind Speed: —	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: Entrance Gate	Location: Middle of Site	Location:
Notes: .04	Notes: .00	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 11⁰⁰	Time: 11⁰⁰	Time:
Wind Direction: —	Wind Direction: —	Wind Direction:
Wind Speed: —	Wind Speed: —	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: Entrance Gate	Location: Middle of Site	Location:
Notes: .04	Notes: .00	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 4⁰⁰	Time: 4⁰⁰	Time:
Wind Direction: —	Wind Direction: —	Wind Direction:
Wind Speed: —	Wind Speed: —	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: Entrance	Location: Middle of Site	Location:
Notes: .04	Notes: .00	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

DIDN'T SET DUE TO RAIN

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = CLOUDY, RAIN

~~Humidity~~: PM = CLOUDY, LITE WIND

Date: THUR. 10-1-98

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = COLD PART SUNNY, SLIGHT WIND ≈ 5# Date: FRI 10-2-98

Humidity:

UNIT 1	UNIT 2	UNIT 3
Time: 8^00	Time: 8^00	Time: 8^00
Wind Direction: NW to SE	Wind Direction: NW to SE	Wind Direction: NW to SE
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: ENTRANCE GATE	Location: MIDDLE OF SITE	Location: NE CORNER OF SITE
Notes: .1	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 10^00	Time: 10^00	Time: 10^00
Wind Direction: NW to SE	Wind Direction: NW to SE	Wind Direction: NW to SE
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: ENTRANCE GATE	Location: MIDDLE OF SITE	Location: NE CORNER
Notes: .1	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time: 4^00	Time: 4^00	Time: 4^00
Wind Direction: NW to SE	Wind Direction: NW to SE	Wind Direction: NW to SE
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: ENTRANCE GATE	Location: MIDDLE OF SITE	Location: NE CORNER
Notes: .1	Notes: .01	Notes: .00

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

Work will be off of E ends cleared Daily

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Sunny, Calm, Cool ≈ 50° Date: Mon - 10-5-98

Humidity: PM = " " " ≈ 60

UNIT 1	UNIT 2	UNIT 3
Time: 7 30	Time: 7 30	Time: 7 30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0-3 mph	Wind Speed: 0-3	Wind Speed: 0-3
Visible Dust: No	Visible Dust: No	Visible Dust: No
Location: Entrance	Location: Middle of Site	Location: Middle of W Prop Li
Notes: .12	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 10 30	Time: 10 30	Time: 10 30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0-3	Wind Speed: 0-3	Wind Speed: 0-3
Visible Dust: No	Visible Dust: —	Visible Dust: —
Location: Entrance Gate	Location: Middle of Site	Location: Middle of W Prop
Notes: .11	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 1 30	Time: 1 30	Time: 1 30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0-3 mph	Wind Speed: 0-3	Wind Speed: 0-3
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance	Location: Middle of Site	Location: W Prop. Line
Notes: .11	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 4 00	Time: 4 00	Time: 4 00
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0-3	Wind Speed: 0-3	Wind Speed: 0-3
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance	Location: Middle of Site	Location: W. Prop Line
Notes: .11	Notes: .00	Notes: .04

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Sun, Calm, Cold = 50° Date: Tues 10/6/98

Humidity: PM = " " Warm = 70°

UNIT 1	UNIT 2	UNIT 3
Time: 7:30	Time: 7:30	Time: 7:30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance Gate	Location: Middle of Site	Location: Middle of W Prep Lin
Notes: .06	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 10:30	Time: 10:30	Time: 10:30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0 3 mph	Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph
Visible Dust: -	Visible Dust: —	Visible Dust: —
Location: Entrance Gate	Location: Middle of Site	Location: Middle of W Prep Lin
Notes: .04	Notes: .00	Notes: .04

UNIT 1	UNIT 2	UNIT 3
Time: 1:30	Time: 1:30	Time: 1:30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph
Visible Dust: -	Visible Dust: -	Visible Dust: -
Location: Entrance Gate	Location: middle of Site	Location: Middle of W Prep Lin
Notes: .00	Notes: .00	Notes: .12

UNIT 1	UNIT 2	UNIT 3
Time: 4:30	Time: 4:30	Time: 4:30
Wind Direction: E to W	Wind Direction: E to W	Wind Direction: E to W
Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph	Wind Speed: 0 - 3 mph
Visible Dust: -	Visible Dust: —	Visible Dust: —
Location: Entrance	Location: Middle of Site	Location: Middle of W Prep L
Notes: .03	Notes: .00	Notes: .12

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Windy, Cloudy, Warm = 65° Date: Wed 10-7-98

Humidity: PM = Calm, Rain, " ≈ 65°

UNIT 1	UNIT 2	UNIT 3
Time: 8^00	Time: 8^00	Time: 8^00
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 5 - 10 mph	Wind Speed: 5 - 10 mph	Wind Speed: 5 - 10 mph
Visible Dust: SLIGHT	Visible Dust: SLIGHTLY	Visible Dust: SLIGHTLY
Location: ENTRANCE GATE	Location: MIDDLE OF SITE	Location: MIDDLE OF EAST PROP LI
Notes: .00	Notes: .05	Notes: .05

UNIT 1	UNIT 2	UNIT 3
Time: 10^00	Time: 10^00	Time: 10^00
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 5 - 10 mph	Wind Speed: 5 - 10 mph	Wind Speed: 5 - 10 mph
Visible Dust: SLIGHTLY	Visible Dust: SLIGHTLY	Visible Dust: SLIGHTLY
Location: ENTRANCE GATE	Location: MIDDLE OF SITE	Location: MIDDLE OF EAST PROP L
Notes: .07	Notes: .04	Notes: .09

UNIT 1	UNIT 2	UNIT 3
Time: 3^00	Time: 3^00	Time: 3^00
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 5 - 10 mph	Wind Speed: 5 - 10 mph	Wind Speed: 5 - 10 mph
Visible Dust: SLIGHTLY	Visible Dust: SLIGHTLY	Visible Dust: SLIGHTLY
Location: ENTRANCE GATE	Location: MIDDLE OF SITE	Location: MIDDLE OF EAST PROP LI
Notes: .07	Notes: .00	Notes: .09

UNIT 1	UNIT 2	UNIT 3
Time: 3^30	Time: 3^30	Time: 3^30
Wind Direction: RAIN	Wind Direction: RAIN	Wind Direction: RAIN
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

Fri = 10/9 RAIN
Fri: 10/9/98
AM = RAIN
PM = LITTLE SUN ACTIVITY

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Calm, Cool, Sunny ≈ 60° Date: Mon 10/12/98

Humidity: PM = " Warm " ≈ 70°

UNIT 1	UNIT 2	UNIT 3
Time: 8⁰⁰	Time: 8⁰⁰	Time: 8⁰⁰
Wind Direction: —	Wind Direction: —	Wind Direction: —
Wind Speed: —	Wind Speed: —	Wind Speed: —
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance Gate	Location: Middle of Site	Location: Klock Area (Cut off Klock)
Notes: .00	Notes: .01	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 3⁰⁰	Time: 3⁰⁰	Time: 3⁰⁰
Wind Direction: —	Wind Direction: —	Wind Direction: —
Wind Speed: —	Wind Speed: —	Wind Speed: —
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance Gate	Location: Middle of Site	Location: Klock Area (Cut off Klock)
Notes: .01	Notes: .01	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 5⁰⁰	Time: 5⁰⁰	Time: 5⁰⁰
Wind Direction: —	Wind Direction: —	Wind Direction: —
Wind Speed: —	Wind Speed: —	Wind Speed: —
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance Gate	Location: Middle of Site	Location: Klock Area
Notes: .02	Notes: .00	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

RAIN STARTED LITE AROUND 3 PM

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM COOL CALM SUNNY ~55° Date: TUE 10/13/98

Humidity: PM WARMER SLIGHT BREEZE PART SUNNY ~ 60°

UNIT 1	UNIT 2	UNIT 3
Time: 7:30	Time: 7:30	Time: 7:30
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 3-5 mph	Wind Speed: 3-5 mph	Wind Speed: 3-5 mph
Visible Dust: SLIGHT	Visible Dust: SLIGHT	Visible Dust: SLIGHT
Location: ENTRANCE	Location: Middle of Site	Location: WALL 'A'-'B' TRANSIT
Notes: .01	Notes: .00	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 11:00	Time: 11:00	Time: 11:00
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 3-5 mph	Wind Speed: 3-5 mph	Wind Speed: 3-5 mph
Visible Dust: SLIGHT	Visible Dust: SLIGHT	Visible Dust: SLIGHT
Location: ENTRANCE	Location: Middle of Site	Location: Wall A-B TRAN
Notes: .01	Notes: .00	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 2:00	Time: 2:00	Time: 2:00
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 3-5 mph	Wind Speed: 3-5 mph	Wind Speed: 3-5 mph
Visible Dust: SLIGHT	Visible Dust: SLIGHT	Visible Dust: SLIGHT
Location: ENTRANCE GATE	Location: Middle Of Site	Location: Wall A-B TRANSITION
Notes: .01	Notes: .00	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

Wed · 10/14 – Rain
THUR · 10/15 – DRIZZLE -Late Sun

AIR MONITORING DATA

Weather Conditions: AM = Cold Calm Post Sun = 50°

Date: Fri 10/16/98

Humidity: PM = Warm. Calm, Wet = 65°

UNIT 1	UNIT 2	UNIT 3
Time: 8^00	Time: 8^00	Time: 8^00
Wind Direction: –	Wind Direction: –	Wind Direction: –
Wind Speed: –	Wind Speed: –	Wind Speed: –
Visible Dust: –	Visible Dust: –	Visible Dust: –
Location: Entrance	Location: Middle of Site	Location: Work Area - Middle of Site
Notes: .02	Notes: .04	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 1^00	Time: 1^00	Time: 1^00
Wind Direction: –	Wind Direction: –	Wind Direction: –
Wind Speed: –	Wind Speed: –	Wind Speed: –
Visible Dust: –	Visible Dust: –	Visible Dust: –
Location: Entrance	Location: Middle of Site	Location: Work Area
Notes: .00	Notes: .04	Notes: .02
UNIT 1	UNIT 2	UNIT 3
Time: 4^00	Time: 4^00	Time: 4^00
Wind Direction: –	Wind Direction: –	Wind Direction: –
Wind Speed: –	Wind Speed: –	Wind Speed: –
Visible Dust: –	Visible Dust: –	Visible Dust: –
Location: Entrance	Location: Middle of Site	Location: Work Area
Notes: .00	Notes: .04	Notes: .07
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Cloudy, Windy, Cool ≈ 45° Date: MON 10/19/9

Humidity: PM = " " " = 55°

UNIT 1	UNIT 2	UNIT 3
Time: 8^00	Time: 8^00	Time: 8^00
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 5-10 mph	Wind Speed: 5-10 mph	Wind Speed: 5-10 mph
Visible Dust: SLIGHTY	Visible Dust: SLIGHTLY	Visible Dust: SLIGHT
Location: ENTRANCE	Location: Middle of Site	Location: CLAY WALL 'A' AREA
Notes: .07	Notes: .04	Notes: .01
UNIT 1	UNIT 2	UNIT 3
Time: 10^30	Time: 10^30	Time: 10^30
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes: .11	Notes: .09	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 2^00	Time: 2^00	Time: 2^00
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes: .11	Notes: .09	Notes: .00
UNIT 1	UNIT 2	UNIT 3
Time: 4^30	Time: 4^30	Time: 4^30
Wind Direction: W to E	Wind Direction: W to E	Wind Direction: W to E
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed: 0-5 mph
Visible Dust: —	Visible Dust: —	Visible Dust: —
Location: Entrance	Location: middle of Site	Location: Clay Wall Area A
Notes: .09	Notes:	Notes:

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM - Part Sunny, Windy ≈ 50° Date: Tues 10/20/98

Humidity: PM " Cldy " ≈ 55"

UNIT 1	UNIT 2	UNIT 3
Time: 8:00	Time: 8:00	Time: 8:00
Wind Direction: NW to E	Wind Direction: NW to E	Wind Direction: NW to E
Wind Speed: 0-3 mph	Wind Speed: 0-3 mph	Wind Speed: 0-3 mph
Visible Dust: -	Visible Dust: -	Visible Dust: -
Location: Entrance	Location: Middle of Site	Location: Work Area
Notes: .09	Notes: .03	Notes: .05
UNIT 1	UNIT 2	UNIT 3
Time: 2:30	Time: 2:30	Time: 2:30
Wind Direction: NW to E	Wind Direction: NW to E	Wind Direction: NW to E
Wind Speed: 5-10 mph	Wind Speed: 5-10 mph	Wind Speed: 5-10 mph
Visible Dust: Slightly	Visible Dust: Slightly	Visible Dust: Slightly
Location: Entrance	Location: Middle of Site	Location: Work Area
Notes: .1	Notes: .04	Notes: .05
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

10/26/98 & 10/27/98 # ONLY 2 MONITORS APPEAR TO BE RECORDING ACCURATELY

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = Cool, Cloudy, Breezy. ± 55° Date: WED 10/28/98

Humidity: PM = Cool, Rain Fell 11:00 AM to ±3:00 PM ± 55°

UNIT 1	UNIT 2	UNIT 3
Time: 7:00	Time: 7:00	Time:
Wind Direction: W to E	Wind Direction: W to E	Wind Direction:
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed:
Visible Dust: SLIGHTLY	Visible Dust: SLIGHT	Visible Dust:
Location: ENTRANCE	Location: WORK AREA (NE PROP LINE)	Location:
Notes: .10	Notes: .08	Notes:
UNIT 1	UNIT 2	UNIT 3
Time: 10:30	Time: 10:30	Time:
Wind Direction: W to E	Wind Direction: W to E	Wind Direction:
Wind Speed: 0-5 mph	Wind Speed: 0-5 mph	Wind Speed:
Visible Dust: SLIGHTLY	Visible Dust: SLIGHTLY	Visible Dust:
Location: ENTRANCE	Location: WORK AREA (NE PROPERTY LINE)	Location:
Notes: .11	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time: 11:00	Time: 11:00	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust: RAIN	Visible Dust: RAIN	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:
UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

ONLY 2 METERS ARE WORKING PROPERLY

SKW Alloys, Inc.

AIR MONITORING DATA

Weather Conditions: AM = CALM, COOL, SUNNY ≈ 50° Date: THUR. 10/29/98

Humidity: PM = " , WARM, " ≈ 60°

UNIT 1	UNIT 2	UNIT 3
Time: 7:30	Time: 7:30	Time:
Wind Direction: —	Wind Direction: —	Wind Direction:
Wind Speed: —	Wind Speed: —	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: ENTRANCE	Location: MIDDLE OF SITE	Location:
Notes: .00	Notes: .11	Notes:

UNIT 1	UNIT 2	UNIT 3
Time: 11:30	Time: 11:30	Time:
Wind Direction: —	Wind Direction: —	Wind Direction:
Wind Speed: —	Wind Speed: —	Wind Speed:
Visible Dust: —	Visible Dust: —	Visible Dust:
Location: ENTRANCE	Location: Middle of Work Area	Location:
Notes: .00	Notes: .11	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes:

UNIT 1	UNIT 2	UNIT 3
Time:	Time:	Time:
Wind Direction:	Wind Direction:	Wind Direction:
Wind Speed:	Wind Speed:	Wind Speed:
Visible Dust:	Visible Dust:	Visible Dust:
Location:	Location:	Location:
Notes:	Notes:	Notes: