SAMPLING DATA

US EPA RECORDS CENTER REGION 5
433051

B1

WDNR Well Construction Details

MW108
MW109
MW110
MW111
MW112
MW113
MW114
MW115
TW1R
TW2R
TW3R
TW5R
TW6R
TW9R
TW19R
TW20R
TW21R
P101
P102
P103
P104
P105A
P105B
P105C
P106A
P106B
P106C

A & H ENGINEERING CORPORATION

CARBONDALE, IL 62901, 353 SOUTH LEWIS LANE TELEPHONE 618 549 5341
CHAMPAIGN, IL 61820, 2112 NORTH MARKET ST TELEPHONE 217 352 7918
DOWNERS GROVE (CHICAGO), IL. 60515, 1536 BROOK DRIVE TELEPHONE 312 629 8440
EAST PEORIA, IL 61611, 1501 NORTH MAIN ST TELEPHONE 309 694 4311
SPRINGFIELD, IL 62704, 308 NORTH ST TELEPHONE 217 544 6663
TERRE HAUTE, IN 47802, 1157 VOORHEES ST. TELEPHONE 812 232 5647
WEST LAFAYETTE, IN 47906, 2336 NORTHWESTERN AVE TELEPHONE 317 463 4112

August 2, 1979

RECEIVED

OCT 4 1979

E.P.A. – D.L.P.C.
STATE OF ILLINOIS

Eldredge Engineering Corporation
2625 Butterfield Road
Oak Brook, Illinois 60521

Attention: Mr. Keith Gordon

Re: Installation of Groundwater Monitoring Wells, Maryville Sanitary Landfill
Des Plaines, Illinois
A & H File No.: 14-9521-B

Gentlemen:

At your request, we have installed a total of nine (9) four (4) inch diameter P.V.C. groundwater monitoring wells at the Maryville Sanitary Landfill located near Des Plaines, Illinois. The landfill is owned and operated by John Sexton Contractors.

These wells were installed around the perimeter of the existing landfill at locations designated by representatives of your company. The well locations are shown on a site plan provided by Eldredge Engineering Associates, Inc., dated January, 1979 and revised May 21, 1979.

Drilling and Sampling Procedures

As the holes for the wells were drilled, soil samples were obtained at five (5) foot intervals. The soil borings were performed with a drilling rig equipped with a rotary head. Conventional hollow stem augers were used to advance the hole. Representative samples were obtained employing split-spoon sampling procedures in accordance with ASTM Procedure D-1586.

Soil samples removed from the split-spoon sampler, after field testing, were placed in glass jars for transportation and further laboratory tests.

During the sampling procedure, standard penetration tests were performed at regular intervals to obtain the standard penetration value (N) of the soil. The standard penetration value (N) is defined as the number of blows of a one hundred forty (140) pound hammer, falling thirty (30) inches, required to advance the split-spoon sampler one (1) foot into the soil.

The sampler is lowered to the bottom of the drill hole and driven for three (3) successive increments of six (6) inches penetration. The "N" value is obtained by recording and adding the number of blows required to advance the sampler through the second and third six (6) inch interval.

The results of the standard penetration tests indicate the relative density and comparative consistency of the soil, and thereby provide a basis for estimating the relative strength and compressibility of the soil profile components.

During the field boring operations, samples of the cohesive soil from the split-spoon sampling device were frequently tested by use of a calibrated soil penetrometer. Consideration must be given to the manner in which the values of the unconfined compressive strengths were obtained. Split-spoon sampling techniques provide a representative, but somewhat disturbed soil sample.

Laboratory Investigation

A supplemental laboratory investigation was conducted to ascertain additional pertinent engineering characteristics of the subgrade materials.

The laboratory testing program included supplementary visual classification and moisture content tests on all samples. The results of moisture content tests are reported on the boring logs.

All phases of the laboratory investigation were conducted in general accordance with applicable ASTM standards.

Subsurface Conditions

The types of materials encountered have been visually classified and are described in detail on the boring logs. The results of field penetration tests, strength tests, and moisture contents are presented on the boring logs in numerical form. Representative samples of the soils were placed in sample jars, and are now stored in our laboratory if further analysis is desired. Unless otherwise notified, all samples will be disposed of after sixty (60) days.

The stratification of the soils as shown on the boring logs represents the soil conditions in the actual boring locations, and other variations may occur between the borings. Lines of demarcation represent the approximate boundary between the soil types, but the transition may be gradual. It is to be noted that, while the test borings are drilled and sampled by experienced drillers, it is sometimes impossible to record changes in stratification of the soils within narrow limits, especially at great depths.

Description of Materials

In general, most of the samples recovered were hard CLAYS and SILTS. These relatively impervious materials existed to considerable depths, usually greater than eighty (80) feet. Occasional thin lenses of SAND and SILT were encountered throughout these thick deposits of CLAY and SILT, but these lenses are generally localized and are not extensive.

In some areas, layers of SAND underlie the CLAYS and SILTS (notably B-6, B-8, B-9, and B-13), while at other locations the CLAY and SILT layers extended to the depth of auger refusal (generally 103 to 110 feet deep). The SAND layers encountered in Borings 6, 8, 9, 13 ranged between approximately eight (8) and fifteen (15) feet.

The overall depth of the borings ranged between 101 and 117 feet below ground surface.

Observation Wells

The wells consisted of four (4) inch diameter P.V.C. pipe that was provided at the site by the client. The bottom five (5) feet of each well was slotted by the client.

Wells were installed after the auger had been removed from the hole. The depth at which the bottom of the well was placed was determined by evaluating the materials encountered at each boring location. An attempt was made to set the bottom five (5) feet of the well within a significantly thick, pervious stratum of soil. In some borings, a pervious stratum of material such as SAND, GRAVEL, or even SILT, was not encountered. A summary of well depths and type of material surrounding the bottom five (5) feet of the well is provided below:

Well Number	Depth to Bottom of Well (ft.)	Soil Type
B-6	110.0	SAND/GRAVEL
B-7	97.0	CLAY
B-8	88.0	Silty SAND
B-9	97.0	CLAY SHALE
B-10	100.0	CLAY SHALE
B-11	80.0	CLAY/SILT
B-12	100.0	SILT
B-13	100.0	Silty SAND
B-14	100.0	SILT

After the well was placed at the desired depth, pea-gravel was placed around the outside of the bottom five (5) feet of the well to help prevent clogging. A bentonite-clay plug was then placed above the pea-gravel to seal the well point. The remainder of the hole surrounding the well was then backfilled with clay and another bentonite-clay plug was placed about one (1) foot below the ground surface to prevent surface water infiltration. The pipe was then cut off so that an appropriate length was exposed above ground, and a temporary cap

was placed on the pipe to prevent debris from falling into the well.

It is understood that ground surface elevations at each well location will be determined by the client.

Summary

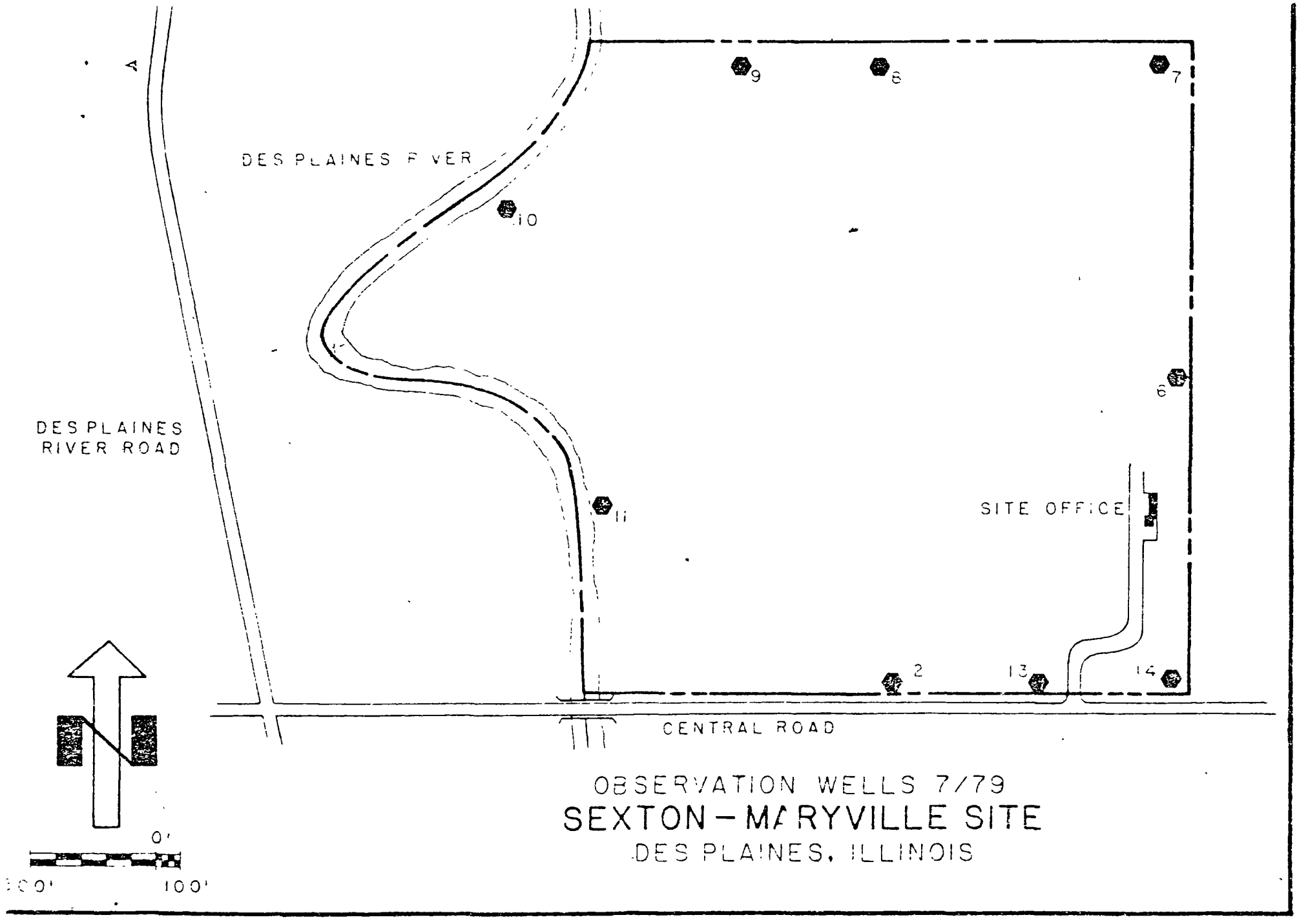
Borings have been made to evaluate subsurface soil conditions and to install nine (9) groundwater monitoring wells around the perimeter of the Maryville Sanitary Landfill in Des Plaines, Illinois. A description of the scope of this project is presented in this report.

If any questions arise concerning the soil conditions, and if we can be of further service, please contact us at your convenience.

Very truly yours,

A & H ENGINEERING CORPORATION

William R. Mosher
Geotechnical Branch Manager
Downers Grove (Chicago), Illinois



OBSERVATION WELLS 7/79

SEXTON – MARYVILLE SITE

DES PLAINES, ILLINOIS

RECORD OF SUBSURFACE EXPLORATION

BORING B-6 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
GH PROJECT NO 14-9521-B
TE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED June 14, 1979
DATE COMPLETED June 19, 1979
DRILLER W. M. BORING METHOD HSA
GW ENCOUNTERED WHILE DRILLING - -

WELL SET AT 110.0' DEPTH

LEV.	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
38±	SURFACE							
	Silty CLAY, brown mottled grey, stiff, moist		1 AU	- -	- -	- -	18	
	CLAY, brown, very stiff, moist, trace Sand	5	2 SS	22	- -	2.8	15	
	CLAY, grey, stiff to hard, moist, trace Sand, with occasional Sand Lense	10	3 SS	29	- -	4.2	14	
		15	4 SS	30	- -	4.5+	11	
		20	5 SS	14	- -	1.5	13	
		25	6 SS	21	- -	2.0	16	
	Clayey SILT, grey hard, moist	30	7 SS	36	- -	4.5+	13	
		35	8 SS	23	- -	4.5+	19	
		40						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU. FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER

SAMPLE DESIGNATION

SS DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST PRESSED SHELBY TUBE
AU – AUGER SAMPLE
RC – ROCK CORE NXM

BORING METHOD

HSA – HOLLOW STEM AUGERS
CFA – CONTINUOUS FLIGHT AUGERS
C – CASING
MD – MUD DRILLING

NOTE: The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

RECORD OF SUBSURFACE EXPLORATION

BORING B-6 (CONT'D) PAGE 2 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
A&H PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED June 14, 1979
DATE COMPLETED June 19, 1979
DRILLER W. M. BORING METHOD HSA

LEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	40						
	CLAY, grey, very stiff to hard, slightly moist, trace Sand, with occasional thin Sand Lense		9 SS	31	- -	2.2	13	
		45	10 SS	36	- -	4.5+	13	
		50	11 SS	28	- -	2.8	16	
		55	12 SS	40	- -	4.5+	16	
		60	13 SS	20	- -	- -	15	
		65	14 SS	75	- -	4.5+	13	
	Dry Sand Lense encountered @ 71.0'	70	15 SS	137/11"	- -	4.5+	12	
		75	16 SS	53	- -	4.5+	12	
		80						

SYMBOLS
N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS./CU FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER

SAMPLE DESIGNATION
SS - DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D
ST - PRESSED SHELBY TUBE
AU - AUGER SAMPLE
RC - ROCK CORE - NXM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
C - CASING
MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

RECORD OF SUBSURFACE EXPLORATION

BORING B-6 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
A&H PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED June 14, 1979
DATE COMPLETED June 19, 1979
DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	BORING CONTINUED	80						
			17SS	175	- -	- -	4	
	SAND, fine, grey, very dense, dry, slightly cemented	85						
			18SS	121	- -	- -	2	
		90						
			19SS	110	- -	- -	3	
		95						
			20SS	123	- -	- -	1	
	(Assumed dense SAND, GRAVEL, or Weathered BEDROCK)	100						
			21SS	118	- -	- -	- -	Samples 21, 22, 23 could not be recovered
		105						
			22SS	100/3"	- -	- -	- -	
		110						
			23SS	100/4"	- -	SET BOTTOM OF 4" WELL @ 110.0'		
		115						Augered to 117.0' but did not sample
	End of Boring @ 117.0'	120						

SYMBOLS
- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- w WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS/CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- GW GROUND WATER

SAMPLE DESIGNATION
- SS DRIVEN SPLIT SPOON 1 3/8" I D, 2" O D
- ST PRESSED SHELBY TUBE
- AU - AUGER SAMPLE
- RC - ROCK CORE NXM

BORING METHOD
- HSA HOLLOW STEM AUGERS
- CFA - CONTINUOUS FLIGHT AUGERS
- C– CASING
- MD– MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-7 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED June 20, 1979

DATE COMPLETED June 21, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING 45.0'

WELL SET AT 97.0' DEPTH

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
635±	SURFACE							
	CLAY, brown, stiff to hard, moist, trace Sand		1 AU	- -	- -	- -	18	
		5	2 SS	18	- -	3.5	21	
	CLAY, grey, hard, moist, trace Sand, with occasional Silt Lense	10	3 SS	28	- -	3.0	18	
		15	4 SS	26	- -	4.0	18	
		20	5 SS	30	- -	4.0	12	
		25	6 SS	37	- -	4.2	17	
	SILT, grey, hard, moist, trace Sand, with occasional hard Clay Lense	30	7 SS	100/5"	- -	- -	14	
		35	8 SS	73	- -	4.5+	13	
		40						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER

SAMPLE DESIGNATION

SS- DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST- PRESSED SHELBY TUBE
AU- AUGER SAMPLE
RC- ROCK CORE NXM

BORING METHOD

HSA- HOLLOW STEM AUGERS
CFA- CONTINUOUS FLIGHT AUGERS
C- CASING
MD- MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-7 (CONT'D) PAGE 2 OF 3

OJECT NAME Installation of Groundwater Monitoring Wells

H PROJECT NO 14-9521-B

E LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED June 20, 1979

DATE COMPLETED June 21, 1979

DRILLER W. M. BORING METHOD HSA

EV.	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	BORING CONTINUED	40						
	SILT, grey, hard, moist, trace Sand		9 SS	66	- -	- -	19	
		45	10 SS	77	- -	- -	14	
	CLAY, grey, hard, moist, trace Sand and Gravel	50	11 SS	28	- -	3.5	20	
		55	12 SS	100/0"	- -	- -	- -	
		60	13 SS	39	- -	4.5+	17	
		65	14 SS	41	- -	3.8	14	
		70	15 SS	45	- -	3.0	12	
		75	16 SS	39	- -	4.5+	12	
		80						

SYMBOLS
- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ. FT
- w WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γ_d NATURAL DRY DENSITY, LBS/CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- ▽GW GROUND WATER

SAMPLE DESIGNATION
- SS- DRIVEN SPLIT SPOON 1 3/8" I D, 2" O D
- ST- PRESSED SHELBY TUBE
- AU- AUGER SAMPLE
- RC- ROCK CORE - NXM

BORING METHOD
- HSA - HOLLOW STEM AUGERS
- CFA- CONTINUOUS FLIGHT AUGERS
- C- CASING
- MD- MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-7 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
A&H PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED June 20, 1979
DATE COMPLETED June 21, 1979
DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	80						
	CLAY, grey, stiff to hard, moist, trace Sand and Gravel		17SS	42	- -	3.0	14	
		85	18SS	26	- -	2.0	25	
		90	19SS	100/2"	- -	- -	- -	
	CLAY, blue-grey, hard, moist, some Sand, Gravel and Limestone fragments	95	20SS	131	- -	- -	13	SET BOTTOM OF 4"WELL @ 97.0'
		100	21SS	100/5"	- -	4.5+	17	
		105	22SS	100/4"	- -	4.5+	15	Auger Refusal
	End of Boring @ 106.0'	110						
		115						
		120						

SYMBOLS
N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION
SS - DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST - PRESSED SHELBY TUBE
AU - AUGER SAMPLE
RC - ROCK CORE - NXM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
C - CASING
MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-8 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED June 25, 1979

DATE COMPLETED June 26, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING 25.0'

WELL SET AT 88.0' DEPTH

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
635±	SURFACE							
	CLAY, brown, stiff, moist, trace Sand		1 AU	- -	- -	- -	20	
		5	2 SS	10	- -	1.5	24	
		10	3 SS	27	- -	4.0	18	
	CLAY, grey, very stiff to hard, moist, trace Sand, with occasional Silt Lense	15	4 SS	17	- -	2.8	15	
		20	5 SS	31	- -	2.2	15	
		25	6 SS	37	- -	4.5+	17	
		30	7 SS	119	- -	4.5+	15	
		35	8 SS	38	- -	4.5+	14	
		40						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- ω WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS/CU FT
- Qp HAND PENETROMETER, TONS/SQ FT.
- GW GROUND WATER

SAMPLE DESIGNATION

- SS - DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
- ST - PRESSED SHELBY TUBE
- AU - AUGER SAMPLE
- RC - ROCK CORE NXM

BORING METHOD

- HSA HOLLOW STEM AUGERS
- CFA - CONTINUOUS FLIGHT AUGERS
- C CASING
- MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-8 (CONT'D) PAGE 2 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

&H PROJECT NO 14-9521-B

ITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED June 25, 1979

DATE COMPLETED June 25, 1979

DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	40						
			9 SS	100/2"	- -	4.5+	15	N=18 for first 6"
		45						
			10 SS	45	- -	3.0	14	
	CLAY, grey stiff to hard, moist, trace Sand, with occasional Silt Lense	50						
			11 SS	29	- -	1.8	20	
		55						
			12 SS	45	- -	4.5	14	
		60						
			13 SS	41	- -	4.5	18	
		65						
			14 SS	39	- -	2.0	20	
		70						
			15 SS	48	- -	4.5+	9	
		75						
			16 SS	43	- -	4.5+	15	
		80						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- ω WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS /CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- ▽GW GROUND WATER

SAMPLE DESIGNATION

- SS– DRIVEN SPLIT SPOON 1 3/8" I D , 2" O.D
- ST– PRESSED SHELBY TUBE
- AU – AUGER SAMPLE
- RC– ROCK CORE · NXM

BORING METHOD

- HSA · HOLLOW STEM AUGERS
- CFA – CONTINUOUS FLIGHT AUGERS
- C - CASING
- MD– MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-8 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
AH PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED June 25, 1979
DATE COMPLETED June 26, 1979
DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED							
	CLAY, grey, very stiff to hard, moist, trace Sand, with occasional Silt Lense	80	17 SS	31	- -	3.2	28	
	Silty SAND, fine, grey, very dense, moist to wet	85	18 SS	180/10"	- -	- -	17	
		90	19 SS	175/10"	- -	- -	20	SET BOTTOM OF 4" WELL AT 88.0'
	Silty CLAY, grey, hard, moist, with Gravel	95	20 SS	100/5"	- -	- -	19	
	Weathered SHALE, blue-grey, hard, slightly moist	100	21 SS	100/4"	- -	- -	13	Auger Refusal
	End of Boring @ 101.0'	105						
		110						
		115						
		120						

SYMBOLS
- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- ω WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX %
- γd NATURAL DRY DENSITY, LBS/CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- GW GROUND WATER

SAMPLE DESIGNATION
- SS - DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D
- ST - PRESSED SHELBY TUBE
- AU - AUGER SAMPLE
- RC - ROCK CORE - NXM

BORING METHOD
- HSA - HOLLOW STEM AUGERS
- CFA - CONTINUOUS FLIGHT AUGERS
- C - CASING
- MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-9 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

PROJECT NO 14-9521-B

LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 9, 1979

DATE COMPLETED July 10, 1979

DRILLER T. B. BORING METHOD HSA

WELL SET AT 97.0' DEPTH

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	SURFACE							
	CLAY, brown, trace Sand & Gravel, stiff, moist	5	1 SS	10	- -	2.3	14	
	Clayey SILT, grey, very stiff, moist	10	2 SS	10	- -	3.0	18	
		15	3 SS	12	- -	- -	- -	
	CLAY, grey, stiff, moist	20	4 SS	10	- -	2.0	15	
	Sandy SILT, grey, moist	25	5 SS	37	- -	- -	18	
	CLAY, grey, hard, slightly moist	30	6 SS	21	- -	4.5+	13	
		35	7 SS	33	- -	4.5+	12	
		40						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- ω WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS /CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- GW GROUND WATER

SAMPLE DESIGNATION

- SS-- DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D
- ST– PRESSED SHELBY TUBE
- AU– AUGER SAMPLE
- RC– ROCK CORE - NXM

BORING METHOD

- HSA– HOLLOW STEM AUGERS
- CFA– CONTINUOUS FLIGHT AUGERS
- C - CASING
- MD– MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-9 (CONT'D) PAGE 2 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
AH PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED July 9, 1979
DATE COMPLETED July 10, 1979
DRILLER T. B. BORING METHOD HSA

LEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	40						
	CLAY, grey, hard, slightly moist		8 SS	31	- -	4.5+	11	
		45	9 SS	25	- -	4.5+	16	
		50	10 SS	40	- -	4.5+	12	
		55	11 SS	38	- -	4.5+	15	
		60	12 SS	23	- -	4.5+	13	
		65	13 SS	40	- -	4.5+	15	
		70	14 SS	35	- -	4.5+	10	Sand Seam 70.0'-71.0'
		75	15 SS	36	- -	4.5+	12	
		80						

SYMBOLS
- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT.
- ω WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS./CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- GW GROUND WATER

SAMPLE DESIGNATION
- SS– DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D.
- ST– PRESSED SHELBY TUBE
- AU– AUGER SAMPLE
- RC– ROCK CORE - NXM

BORING METHOD
- HSA – HOLLOW STEM AUGERS
- CFA – CONTINUOUS FLIGHT AUGERS
- C– CASING
- MD– MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-9 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
PROJECT NO 14-9521-B
LOCATION Maryville, Sanitary Landfill
Des Plaines, Illinois

DATE STARTED July 9, 1979
DATE COMPLETED July 10, 1979
DRILLER T. B. BORING METHOD HSA

EV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	BORING CONTINUED	80						
	SAND, grey, fine, very dense, slightly moist		16 SS	99	- -	- -	9	
		85	17 SS	84/6"	- -	- -	14	
		90	18 SS	100/5"	- -	4.5+	7	
	Clay SHALE, grey, hard, slightly moist	95	19 SS	75/5"	- -	4.5+	7	Set Bottom of 4" Well @ 97.0
		100	20 SS	100/2"	- -	4.5+	7	
	Assumed GRAVEL, SAND, or Weathered BEDROCK	105						Augered to 107.0' but did not sample
		110						
		115						
		120						

SYMBOLS
- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- w WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γ_d NATURAL DRY DENSITY, LBS/CU FT
- Qp HAND PENETROMETER, TONS/SQ FT.
- GW GROUND WATER

SAMPLE DESIGNATION
- SS-- DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D.
- ST-- PRESSED SHELBY TUBE
- AU-- AUGER SAMPLE
- RC-- ROCK CORE - NXM

BORING METHOD
- HSA-- HOLLOW STEM AUGERS
- CFA-- CONTINUOUS FLIGHT AUGERS
- C-- CASING
- MD-- MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-10 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 2, 1979

DATE COMPLETED July 3, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING - - -

WELL SET AT 100.0' DEPTH

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	SURFACE							
	CLAY, brown, mottled grey, stiff, moist, trace organics		1 AU	- -	- -	- -	10	
		5	2 SS	13	- -	2.3	12	
		10	3 SS	58	- -	1.7	22	
	CLAY, grey, stiff to hard, moist, trace Sand and Gravel	15	4 SS	30	- -	3.0	17	
		20	5 SS	26	- -	2.6	14	
		25	6 SS	31	- -	4.3	15	
		30	7 SS	98	- -	1.5	17	
		35	8 SS	58	- -	4.5+	13	
		40						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ. FT
- w WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γ_d NATURAL DRY DENSITY, LBS /CU FT
- Qp HAND PENETROMETER, TONS/SQ FT.
- GW GROUND WATER

SAMPLE DESIGNATION

- SS - DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
- ST - PRESSED SHELBY TUBE
- AU - AUGER SAMPLE
- RC - ROCK CORE - NXM

BORING METHOD

- HSA - HOLLOW STEM AUGERS
- CFA - CONTINUOUS FLIGHT AUGERS
- C - CASING
- MD - MUD DRILLING

NOTE: The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

RECORD OF SUBSURFACE EXPLORATION

BORING B-10 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 2, 1979

DATE COMPLETED July 3, 1979

DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	(i)	REMARKS
	BORING CONTINUED	80						
	CLAY, grey, hard, moist, trace Sand, with occasional Silt and Sand Lense		17 SS	36	- -	4.0	20	
		85	18 SS	100/10"	- -	4.5+	13	
	CLAY and GRAVEL, grey, hard, moist	90	19 SS	100/4"	- -	- -	14	
	CLAY SHALE, grey, hard, slightly moist	95	20 SS	100/3"	- -	- -	8	
		100	21 SS	100/1"	- -	- -	8	Set Bottom of 4" Well @ 100.0'
	End of Boring @ 103.0'	105						Auger Refusal
		110						
		115						
		120						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT.
w WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS /CU. FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER

SAMPLE DESIGNATION

SS – DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D
ST – PRESSED SHELBY TUBE
AU – AUGER SAMPLE
RC – ROCK CORE NXM

BORING METHOD

HSA - HOLLOW STEM AUGERS
CFA – CONTINUOUS FLIGHT AUGERS
C - CASING
MD – MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

RECORD OF SUBSURFACE EXPLORATION

BORING B-11 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 12, 1979

DATE COMPLETED July 13, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING

WELL SET AT 80.0' DEPTH

ELEV.	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	SURFACE							
	CLAY, brown mottled grey, firm to stiff, moist, trace Sand		1 AU	- -	- -	- -	17	
		5	2 SS	9	- -	2.5	16	
		10	3 SS	5	- -	1.0	18	
		15	4 SS	5	- -	- -	16	
	Clay LOAM, brown, soft, moist	20	5 SS	11	- -	0.7	21	
		25	6 SS	45	- -	4.0	19	
	CLAY, grey, hard, moist, trace Sand and occasional Silt Lenses	30	7 SS	26	- -	3.5	14	
		35	8 SS	40	- -	4.5+	17	
		40						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- w WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS./CU FT
- Qp HAND PENETROMETER, TONS/SQ FT
- ▽GW GROUND WATER

SAMPLE DESIGNATION

- SS - DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D.
- ST - PRESSED SHELBY TUBE
- AU - AUGER SAMPLE
- RC - ROCK CORE NXM

BORING METHOD

- HSA - HOLLOW STEM AUGERS
- CFA - CONTINUOUS FLIGHT AUGERS
- C - CASING
- MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-11 (CONT'D) PAGE 2 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
A&H PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 12, 1979
DATE COMPLETED July 13, 1979
DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	40						
	CLAY, grey, hard, moist, trace Sand and occasional Silt Lense		9 SS	100/4"	- -	- -	17	Silt Lense @ 40.0'
		45	10 SS	101	- -	4.5+	13	
		50	11 SS	57	- -	4.5+	19	
		55	12 SS	51	- -	4.5+	20	
		60	13 SS	59	- -	4.5+	15	
	SILT, grey, hard, moist, trace Sand & Clay	65	14 SS	100/Seat	-	- -	12	
		70	15 SS	51	- -	- -	12	
	CLAY, grey, hard, moist, trace Sand	75	16 SS	57	- -	3.0	15	Set Bottom of 4" Well at 80.0'
		80						

SYMBOLS
N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER

SAMPLE DESIGNATION
SS DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST– PRESSED SHELBY TUBE
AU– AUGER SAMPLE
RC– ROCK CORE NXM

BORING METHOD
HSA– HOLLOW STEM AUGERS
CFA– CONTINUOUS FLIGHT AUGERS
C– CASING
MD– MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-11 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 12, 1979

DATE COMPLETED July 13, 1979

DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	80						
	CLAY, grey, hard, moist, trace Sand, with some Gravel and occasional Silt Lense		17 SS	57	- -	3.5	12	
		85	18 SS	75	- -	- -	21	
		90	19 SS	66	- -	3.8	14	
		95	20 SS	49	- -	- -	14	
		100	21 SS	72	- -	3.5	18	
		105	22 SS	100/5"	- -	2.0	23	
	End of Boring @ 108.0'	110						
		115						
		120						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT.
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS - DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST - PRESSED SHELBY TUBE
AU - AUGER SAMPLE
RC - ROCK CORE - NXM

BORING METHOD

HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
C - CASING
MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-12 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells
A&H PROJECT NO 14-9521-B
SITE LOCATION Maryville Sanitary Landfill
Des Plaines, Illinois

DATE STARTED July 11, 1979
DATE COMPLETED July 11, 1979
DRILLER T. B. BORING METHOD HSA
GW ENCOUNTERED WHILE DRILLING

WELL SET AT 100.0' DEPTH

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	SURFACE							
	CLAY, brown, stiff to hard, moist, trace Sand and Organics		1 AU	- -	- -	- -	20	
		5	2 SS	18	- -	4.5+	24	
	CLAY, grey, very stiff to hard, moist	10	3 SS	22	- -	4.2	14	
		15	4 SS	17	- -	3.2	13	
		20	5 SS	19	- -	3.8	18	
	Clayey SILT, grey, hard, slightly moist to moist, with occasional Sand Lense	25	6 SS	24	- -	4.5+	17	
		30	7 SS	23	- -	- -	10	
		35	8 SS	68	- -	- -	17	
		40						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
w WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS - DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST - PRESSED SHELBY TUBE
AU - AUGER SAMPLE
RC - ROCK CORE NXM

BORING METHOD

HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
C CASING
MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-12 (CONT'D) PAGE 2 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 11, 1979

DATE COMPLETED July 11, 1979

DRILLER T. B. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	40						
	CLAY, grey, very stiff to hard, moist		9 SS	39	- -	4.5	17	
		45	10 SS	30	- -	3.8	19	
	SILT, grey, hard, moist, some Clay	50	11 SS	35	- -	4.0	18	
		55	12 SS	50/3"	- -	4.5+	13	
	CLAY, grey, stiff to hard, moist, trace Sand	60	13 SS	49	- -	4.5	20	
		65	14 SS	25	- -	2.0	14	
		70	15 SS	19	- -	1.8	22	
		75	16 SS	43	- -	4.5+	18	
		80						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D
ST – PRESSED SHELBY TUBE
AU – AUGER SAMPLE
RC – ROCK CORE NXM

BORING METHOD

HSA - HOLLOW STEM AUGERS
CFA – CONTINUOUS FLIGHT AUGERS
C - CASING
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NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-12 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 11, 1979

DATE COMPLETED July 11, 1979

DRILLER T. B. BORING METHOD HSA

LEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	BORING CONTINUED	80						
	CLAY and GRAVEL, grey, hard, slightly moist		17 SS	50/3"	- -	- -	8	
		85	18 SS	53/6"	- -	- -	10	
	SILT, grey, hard, moist, some fine Sand	90	19 SS	54/6"	- -	- -	15	
		95	20 SS	61	- -	- -	18	
		100	21 SS	51	- -	- -	2	Set Bottom of 4" Well @ 100.0'
	Assumed SAND, GRAVEL, or Weathered BEDROCK	105						Augered to 110.0' but did not sample
	End of Boring @ 110.0'	110						
		115						
		120						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
w WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS- DRIVEN SPLIT SPOON 1 3/8" I D, 2" O D
ST- PRESSED SHELBY TUBE
AU- AUGER SAMPLE
RC- ROCK CORE NXM

BORING METHOD

HSA - HOLLOW STEM AUGERS
CFA CONTINUOUS FLIGHT AUGERS
C CASING
MD MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-13 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

&H PROJECT NO 14-9521-B

TE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 6, 1979

DATE COMPLETED July 9, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING 12.0'

WELL SET AT 100.0' DEPTH

LEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	SURFACE							
	Silty CLAY TOPSOIL, black, stiff, moist, trace organics		1 AU	- -	- -	- -	42	
	CLAY, brown, hard, moist	5	2 SS	20	- -	4.5+	18	
	CLAY, brown, mottled grey, very stiff, moist, trace Sand	10	3 SS	22	- -	3.0	25	
		15	4 SS	14	- -	- -	18	
	CLAY, grey, stiff to hard, moist, trace Sand with occasional Silt Lenses	20	5 SS	25	- -	4.5+	18	
		25	6 SS	26	- -	3.5	20	
		30	7 SS	75	- -	1.3	15	
		35	8 SS	46	- -	4.5+	15	
		40						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ. FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS /CU FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER

SAMPLE DESIGNATION

SS - DRIVEN SPLIT SPOON 1 3/8" I.D , 2" O D
ST - PRESSED SHELBY TUBE
AU - AUGER SAMPLE
RC ROCK CORE NXM

BORING METHOD

HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
C - CASING
MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-13 PAGE 1 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

WH PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 6, 1979

DATE COMPLETED July 9, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING 12.0'

WELL SET AT 100.0' DEPTH

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	SURFACE							
	Silty CLAY TOPSOIL, black, stiff, moist, trace organics		1 AU	- -	- -	- -	42	
	CLAY, brown, hard, moist	5	2 SS	20	- -	4.5+	18	
	CLAY, brown, mottled grey, very stiff, moist, trace Sand	10	3 SS	22	- -	3.0	25	
		15	4 SS	14	- -	- -	18	
	CLAY, grey, stiff to hard, moist, trace Sand with occasional Silt Lenses	20	5 SS	25	- -	4.5+	18	
		25	6 SS	26	- -	3.5	20	
		30	7 SS	75	- -	1.3	15	
		35	8 SS	46	- -	4.5+	15	
		40						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- w WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS /CU FT.
- Qp HAND PENETROMETER, TONS/SQ FT
- GW GROUND WATER

SAMPLE DESIGNATION

- SS - DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D.
- ST - PRESSED SHELBY TUBE
- AU - AUGER SAMPLE
- RC ROCK CORE NXM

BORING METHOD

- HSA - HOLLOW STEM AUGERS
- CFA - CONTINUOUS FLIGHT AUGERS
- C - CASING
- MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-13 (CONT'D) PAGE 2 OF 3

ROJECT NAME Installation of Groundwater Monitoring Wells

&H PROJECT NO 14-9521-B

TE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 6, 1979

DATE COMPLETED July 9, 1979

DRILLER W. M. BORING METHOD HSA

LEV.	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	40						
	CLAY, grey, very stiff to hard, moist, trace Sand and occasional Silt Lenses		9 SS	49	- -	4.5	16	
		45	10 SS	51	- -	4.5+	15	
		50	11 SS	44	- -	4.0	16	
		55	12 SS	84	- -	2.5	12	
		60	13 SS	87	- -	4.5+	13	
		65	14 SS	34	- -	4.5	18	
		70	15 SS	32	- -	2.5	22	
		75	16 SS	48	- -	4.5	11	
		80						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT.
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS/CU FT
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER ▽

SAMPLE DESIGNATION

SS – DRIVEN SPLIT SPOON 1 3/8" I D, 2" O D
ST – PRESSED SHELBY TUBE
AU – AUGER SAMPLE
RC – ROCK CORE NXM

BORING METHOD

HSA – HOLLOW STEM AUGERS
CFA – CONTINUOUS FLIGHT AUGERS
C CASING
MD – MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-13 (CONT'D) PAGE 3 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

SWH PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 6, 1979

DATE COMPLETED July 9, 1979

DRILLER W. M. BORING METHOD HSA

ELEV.	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	BORING CONTINUED	80						
	CLAY, grey, hard, moist, trace Sand and some Gravel		17 SS	46	- -	3.8	13	
		85	18 SS	100/4"	- -	- -	16	
	Silty fine SAND to Sandy SILT, grey, very dense, moist, some Gravel	90	19 SS	100/5"	- -	- -	14	
		95	20 SS	100/4"	- -	- -	12	
		100	21 SS	100/3"	- -	- -	11	Set Bottom of 4" Well @ 100.0'
		105						Auger Refusal
	End of Boring @ 105.0'							
		110						
		115						
		120						

SYMBOLS

- N STANDARD PENETRATION, BLOWS/FT
- Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
- ω WATER CONTENT, %
- LL LIQUID LIMIT, %
- PI PLASTICITY INDEX, %
- γd NATURAL DRY DENSITY, LBS /CU. FT.
- Qp HAND PENETROMETER, TONS/SQ FT
- GW GROUND WATER
- ▼

SAMPLE DESIGNATION

- SS– DRIVEN SPLIT SPOON 1 3/8" I D., 2" O D.
- ST – PRESSED SHELBY TUBE
- AU– AUGER SAMPLE
- RC– ROCK CORE - NXM

BORING METHOD

- HSA - HOLLOW STEM AUGERS
- CFA– CONTINUOUS FLIGHT AUGERS
- C– CASING
- MD– MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-14 PAGE 1 OF 3

OJECT NAME Installation of Groundwater Monitoring Wells

:H PROJECT NO 14-9521-B

I E LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 10, 1979

DATE COMPLETED July 11, 1979

DRILLER W. M. BORING METHOD HSA

GW ENCOUNTERED WHILE DRILLING

WELL SET AT 100.0' DEPTH

LEV.	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	ω	REMARKS
	SURFACE							
	Silty CLAY, black, stiff, moist, some organics		1 AU	- -	- -	- -	34	
	Sandy LOAM, brown, soft to firm, moist	5	2 SS	13	- -	- -	13	
	CLAY, grey, hard, moist, trace Sand	10	3 SS	26	- -	3.8	21	
		15	4 SS	27	- -	4.0	14	
		20	5 SS	26	- -	3.0	14	
	SILT, grey, hard, moist, some Clay	25	6 SS	53	- -	4.5	13	
		30	7 SS	68	- -	- -	16	
	CLAY, grey, firm, moist, trace Sand	35	8 SS	65	- -	1.0	18	
		40						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT.
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT
ω WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS /CU FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS-- DRIVEN SPLIT SPOON 1 3/8" I.D , 2" O D
ST-- PRESSED SHELBY TUBE
AU-- AUGER SAMPLE
RC-- ROCK CORE NXM

BORING METHOD

HSA-- HOLLOW STEM AUGERS
CFA-- CONTINUOUS FLIGHT AUGERS
C-- CASING
MD - MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

RECORD OF SUBSURFACE EXPLORATION

BORING B-14 (CONT'D) PAGE 2 OF 3

PROJECT NAME Installation of Groundwater Monitoring Wells

A&H PROJECT NO 14-9521-B

SITE LOCATION Maryville Sanitary Landfill Des Plaines, Illinois

DATE STARTED July 10, 1979

DATE COMPLETED July 11, 1979

DRILLER W. M. BORING METHOD HSA

ELEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	BORING CONTINUED	40						
	CLAY, grey, hard, moist, trace Sand		9 SS	82	- -	4.5+	11	
		45	10 SS	33	- -	4.0	20	
		50	11 SS	35	- -	4.0	14	
		55	12 SS	30	- -	3.0	19	
		60	13 SS	77	- -	- -	17	
	SILT, grey, hard, moist, trace Sand	65	14 SS	132	- -	- -	10	
		70	15 SS	55	- -	3.2	13	
	CLAY, grey, hard, moist, trace Sand and Gravel	75	16 SS	82	- -	4.5+	12	
		80						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ. FT.
w WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γ_d NATURAL DRY DENSITY, LBS /CU FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS - DRIVEN SPLIT SPOON 1 3/8" I D , 2" O D
ST– PRESSED SHELBY TUBE
AU– AUGER SAMPLE
RC– ROCK CORE NXM

BORING METHOD

HSA – HOLLOW STEM AUGERS
CFA – CONTINUOUS FLIGHT AUGERS
C– CASING
MD-- MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

RECORD OF SUBSURFACE EXPLORATION

BORING B-14 (CONT'D) PAGE 3 OF 3

OJECT NAME Installation of Groundwater Monitoring Wells

RH PROJECT NO 14-9521-B

E LOCATION Maryville Sanitary Landfill, Des Plaines, Illinois

DATE STARTED July 10, 1979

DATE COMPLETED July 11, 1979

DRILLER W. M. BORING METHOD HSA

LEV	DESCRIPTION	DEPTH	SAMPLE	N	Qu	Qp	w	REMARKS
	BORING CONTINUED	80						
	CLAY, grey, hard, moist, with Gravel		17 SS	107	- -	1.2	13	
		85	18 SS	82	- -	1.0	15	
		90	19 SS	45	- -	1.0	16	
	SILT, grey, hard, moist, trace Sand and Gravel	95	20 SS	100/3"	- -	4.5+	12	
		100	21 SS	100/3"	- -	2.0	14	Set Bottom of 4" Well at 100.0'
	CLAY and GRAVEL, grey, hard, moist, trace Sand	105	22 SS	100/3"	- -	- -	15	
		110						
	End of Boring @ 110.0'	115						
		120						

SYMBOLS

N STANDARD PENETRATION, BLOWS/FT.
Qu UNCONFINED COMPRESSIVE STRENGTH, TONS/SQ FT.
w WATER CONTENT, %
LL LIQUID LIMIT, %
PI PLASTICITY INDEX, %
γd NATURAL DRY DENSITY, LBS /CU. FT.
Qp HAND PENETROMETER, TONS/SQ FT
GW GROUND WATER
▽

SAMPLE DESIGNATION

SS – DRIVEN SPLIT SPOON 1 3/8" I.D., 2" O.D.
ST – PRESSED SHELBY TUBE
AU – AUGER SAMPLE
RC – ROCK CORE NXM

BORING METHOD

HSA – HOLLOW STEM AUGERS
CFA – CONTINUOUS FLIGHT AUGERS
C – CASING
MD – MUD DRILLING

NOTE The stratification lines represent the approximate boundary between soil types and the transition may be gradual

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

PERMIT ISSUED

DISPOSAL SITE

CARD TYPE HEADING Sexton / Des Plaines COUNTY Cook DATE 10/17/78

L P S W C (1–5) REGION N (8) SITE CODE 0310630 1 (9–16) AUTHORIZATION NUMBER 782061 (17–22) TRANS CODE A (23)

DATE ENTERED (Agency Use) (24–25) / (26–27) / (28–29)

WASTE HAULER

10 (6/7) HAULER CODE 0312580002 H (30–39, 40) HEADING Sexton / Des Plaines (41–60)

NAME Scrap Haulers (61–80)

11 (6/7) ADDRESS 13840 So. Halsted (30–44) COMMUNITY Riverdale (45–59)

COUNTY Cook (60–69) STATE IL (70–71) ZIP 60627 (72–76) WASTE HAULER TRANSACTION CODE (Agency Use) (77)

12 (6/7) AREA CODE 312 (30–32) TELEPHONE 8417020 (33–39)

WASTE GENERATOR

13 (6/7) GENERATOR CODE 9809428001 G (30–39, 40) HEADING Sexton / Des Plaines (41–60)

NAME Apollo Metals Inc (61–80)

14 (6/7) ADDRESS 1001 - 14th Ave. (30–44) COMMUNITY Bethlehem (45–59)

COUNTY (60–69) STATE Pa (70–71) ZIP 18018 (72–76) WASTE GENERATOR TRANSACTION CODE (Agency Use) (77)

15 (6/7) AREA CODE 215 (30–32) TELEPHONE 8675826 (33–39)

GENERATOR CONTACT NAME Hagen Wettner (312-7676161) (40–69)

20 (6/7) DUNS NUMBER (30–38) SIC CODE 3471 (39–42) IEPA (43–45)

PROCESS NAME Metal Plating (46–75)

WASTE CHARACTERISTICS

30 (6/7) GENERIC WASTE NAME Spent Copper Sulfate Plating Soln. (30–59)

40 (6/7) IUPAC WASTE NAME (30–59)

TOTAL ANNUAL WASTE VOLUME 7000 (60–69) VOLUME UNITS 2 (70) WASTE PHASE 3 (71)

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 1 (72) NEUTRALIZATION METHOD 04 (73–74) DISPOSAL METHOD 01 (75–76)

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

RECEIVED
OCT 23 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

RECEIVED
DEC 3 - 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

CARD TYPE L P S W C (1–6) REGION N (8) SITE CODE 0 3 1 0 6 3 0 1 (9–16) AUTHORIZATION NUMBER 7 8 2 0 6 1 (17–22) TRANS CODE C (23)

DATE ENTERED (Agency Use) 1 0 / 2 3 / 7 8 (24–29)

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50 (6–7)

INHALATION TOXICITY 2 (30) DERMAL TOXICITY 3 (31) INGESTIVE TOXICITY 3 (32) INFECTIOUS ___ (33) REACTIVITY ___ (34) EXPLOSIVE ___ (35)

FLASH POINT 200 °F (36–39) ALPHA RADIATION ___ (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY ___ . ___ (47–49) PERCENT ALKALINITY ___ . ___ (50–52) pH 1.4 (53–55) xf ___ . ___ (56–60)

60 (6–7)

KEY	COMPONENT NAME	PERCENT	KEY	COMPONENT NAME	PERCENT
1 (30–31)	Sulfuric Acid (50)	0.1 (51–54)	2 (55–56)	(76)	. (76–79)
3 (30–31)	Water (50)	99.9 (51–54)	4 (55–56)	(75)	. (76–79)
5 (30–31)	(50)	. (51–54)	6 (55–56)	(75)	. (76–79)

70 (6–7)

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01 (30–31)	0.1 (32–39)	. (40–47)	Ag	02 (30–31)	. (32–39)	. (40–47)
Al	03	.	.	As	04	.	.
Ba	05	.	.	Be	06	.	.
Bi.	07	.	.	Ca	08	.	.
Cd	09	11.0	.	Cr	10	12.0	.
Cr^{+6}	11	.	.	Cu	12	8.0	.
Fe	13	.	.	Hg	14	.	.
K	15	.	.	Li	16	.	.
Mg	17	.	.	Mn	18	.	.
Mo	19	.	.	Na	20	.	.
Ni	21	142.5	.	P	22	.	.
Pb	23	2.0	.	Pd	24	.	.
Se	25	.	.	Si	26	.	.
Sn	27	.	.	Sr	28	.	.
Ti	29	.	.	V	30	.	.
Y	31	.	.	Zn	32	82.5	.

80 (6–7)

LABORATORY NAME Scientific Control (30–49)

CERTIFICATION NUMBER ___ (50–59) REVIEWED BY: [illegible] (60–65)

90 (6–7)

STATUS A (30) TRANSACTION DATE 1 1 / 2 8 / 7 8 (31–36) EXPIRATION DATE 1 1 / 2 8 / 7 9 (37–42)

SIGNATURE [illegible] (Land Disposal Site Operator or Agent) SIGNATURE ___ (Site Engineer)

ADM-1067 (REV. 7/78)

CLIFTBIDE 4-2406

Scientific
CONTROL LABORATORIES, INC.
TESTING • RESEARCH • CONSULTING

RECEIVED
DEC 3 - 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

REPORT TO: Apollo Metals, Inc.
1001 - 14th Avenue
P. O. Box 4045
Bethlehem, Pennsylvania 18018

ATTENTION: Mr. A. Massieon

ORDER NO.: B 15321 — REPORT NO.: 3-731

SPECIFICATION NO.: — RECEIVED: 12-13-77

TYPE TEST: Chemical Analysis — REPORTED: 12-14-77

IDENTIFICATION OF MATERIAL

One (1) sample - copper sulfate solution.

RESULTS:	Concentration in ppm (unless otherwise noted)
Copper (oz/gal)	8.05
Cadmium	11.0
Total Chromium	12.0
Lead	2.0
Nickel	142.5
Zinc	87.5
Cyanide, Amenable to Chlorination	*.1
pH	1.37 H_2SO_4 = 100 g/l

*Denotes "less than"

flash point >200 °C

Respectfully submitted,

SCIENTIFIC CONTROL LABORATORIES, INC.

By Frank Altmayer
Frank Altmayer

FA:vc
2 c

CERTIFICATION

The above statements and report were subscribed and sworn to before me this FOURTEENTH day of DECEMBER, 1977.

Notary Public

RECEIVED

OCT 10 1978

ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

PERMIT ISSUED

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

RECEIVED

SEP 5 1978

E.P.A. – D.L.P.C.
STATE OF ILLINOIS

DISPOSAL SITE

HEADING DES PLAINES NAME Sexton COUNTY Cook DATE 8-18-78

LPSWC 1 5 6 7 REGION N 8 SITE CODE 0 3 1 0 6 3 0 1 9 16 AUTHORIZATION NUMBER 781659 17 22 TRANSACTION CODE 4 23

WASTE HAULER

10 HAULER CODE 0312940001 24 H 34 HEADING DES PLAINES / SEXTON 35 54

NAME Liquid Dynamics 55 74

11 ADDRESS 3202 S State St. 24 38 COMMUNITY So Chicago Hts. 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60411 66 70 AREA CODE 312 71 73

TELEPHONE 7562548 74 80

WASTE GENERATOR

12 GENERATOR CODE 0990850005 24 33 G 34 HEADING DES PLAINES / SEXTON 35 54

NAME American Nickeloid Co. 55 74

13 ADDRESS 127 Westacre Dr. 24 38 COMMUNITY Peru 39 53

COUNTY LaSalle 54 63 STATE IL 64 65 ZIP 61354 66 70 AREA CODE 815 71 73

TELEPHONE 2230373 74 80

20 DUNS NUMBER 24 32 SIC CODE 3446 33 36 IEPA NUMBER 103 37 39

PROCESS NAME Metal (Decorating) Prefinishing 40 69

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Metal Working By-Product 24 53

40 IUPAC WASTE NAME 24 53

TOTAL WASTE 120000 54 63

VOLUME UNITS __1.TONS __2.CUBIC YARDS __3.GALLONS 3 64 WASTE PHASE __1.SOLID __2.SEMI-SOLID __3.LIQUID __4.GAS 3 65

TRANSPORT FREQUENCY __1.ONE TIME __2.DAILY __3.WEEKLY __4.BI-WEEKLY __5.MONTHLY __6.BI-MONTHLY __7.QUARTERLY

__8.SEMI-ANNUALLY 5 66 NEUTRALIZATION METHOD 01 67 68 DISPOSAL METHOD 10 69 70

WASTE CHARACTERISTICS

50 INHALATION TOXICITY ×1.LOW __2.MEDIUM __3.HIGH 1 (24) DERMAL TOXICITY __1.LOW __2.MEDIUM __3.HIGH 1 (25)

INGESTION TOXICITY __1.LOW __2.MEDIUM __3.HIGH 1 (26) INFECTIOUS __1.LOW __2.MEDIUM __3.HIGH __ (27)

ALPHA RADIATION ____ (28–33) (pCi/L) EXPLOSIVE __1.LOW __2.MEDIUM __3.HIGH __ (34) FLASH POINT 200 (35–38)

REACTIVITY __1.LOW __2.MEDIUM __3.HIGH __ (39) PERCENT ACIDITY __.__ (40–42) PERCENT ALKALINITY __.__ (43–45) pH 13.0 (46–48)

xf ___.__ (49–54) __1.ORGANIC __2.INORGANIC 1 (55)

60

KEY	COMPONENT NAME	PERCENT (THREE CARDS POSSIBLE)	KEY	COMPONENT NAME	PERCENT
1 (24)	Water (25–44)	50.0 (45–48)	2 (49)	(50–69)	. (70–73)
3 (24)	Sand and Ash (25–44)	49.0 (45–48)	4 (49)	(50–69)	. (70–73)
5 (24)	(25–44)	. (45–48)	6 (49)	(50–69)	. (70–73)

70

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01 (24–25)	3.2 (26–33)	. (34–41)	MG	17	.	.
Ag	02	.	.	Mn	18	.	.
Al	03	.	.	Mo	19	.	.
As	04	.04	.	Na	20	.	.
Ba	05	.	.	Ni	21	.	.
Be	06	.	.	P	22	.	.
Bi	07	.	.	Pb	23	7.0	.
Ca	08	.	.	Pd	24	.	.
Cd	09	0.6	.	Se	25	.	.
Cr	10	7.4	.	Si	26	.	.
Cr^{+6}	11	.	.	Sn	27	.	.
Cu	12	860.	.	Sr	28	.	.
Fe	13	.	.	Ti	29	.	.
Hg	14	.01	.	V	30	.	.
Ka	15	.	.	Y	31	.	.
Li	16	.	.	Zn	32	190.	.

80 LABORATORY NAME American Nickeloid (24–43)

CERTIFICATION NUMBER ____ (44–53) APPROVED BY: MJM / TEC (54–56 / 57–59) 10/2/78 Expires 10/2/79

LAND DISPOSAL SITE OPERATOR OR AGENT

SIGNATURE Brock R. Reinhard

SITE ENGINEER

SIGNATURE _____

ADM-1067 (1/77)

LIQUID DYNAMICS

Division Of Environmental Dynamics
501 Richton Road
Steger, Illinois 60475

LABORATORY REPORT

ANALYTICAL INFORMATION

L.D.# [illegible]-107

P.O.#

LAB. REPORT # 9301-2

TEI #

SIC #

SAMPLE RECEIVED May 28, 1978

DATE OF LAB. REPORT June 9, 1978

CUSTOMER: American Nickeloid Co.
127 Westerene Drive
Peru, Illinois

	TEST	VALUE	UNITS
	PH TOTAL DISOLVED SOLIDS	4.1	%
	SLUDGE VOLUME	75	%
	SLUDGE GRAVITY		
	C.O.D.		
	ASH	44.4	%
	ARSENIC	45	ug/mg
	BARIUM		
	MERCURY	13	ug/l
	CYANIDE	3.24	mg/l
	ACID TITER		
	BASE TITER		
	KJELDAHLN HYDROCARBONS		
	pH	13.0	
	Phenols	0.20	mg/l
	Nickel	4.2	mg/l

	TEST	VALUE	UNITS
	FLASH POINT	no flash	~~[illegible]~~
	GAS CHROMATOGRAM		
	INFRA RED		
	SULFUR		
	ASH	44.4	%
	ENERGY VALUE		
	1# PLASMA CASSETTE		
	CADMIUM	0.6	mg/l
	CHROMIUM	7.4	mg/l
	COPPER	860	mg/l
	LEAD	7.0	mg/l
	ZINC	190	mg/l
	ETHER EXTRACTION		
	Total Solids	49.5	%

COMMENTS: ~50% H_2O ~50% SiO_2 & Ash

CHEMIST: [illegible]

DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

PERMIT ISSUED

DISPOSAL SITE

CARD TYPE HEADING Sexton / Des Plaines COUNTY Cook DATE 10/20/78

L P S W C REGION N SITE CODE 0 3 1 0 6 3 0 1 AUTHORIZATION NUMBER 7 8 2 0 9 5 TRANS CODE A

DATE ENTERED (Agency Use) 10/20/78

WASTE HAULER

10 HAULER CODE 0 3 1 2 5 8 0 0 0 2 H HEADING Sexton / Des Plaines

NAME Scrap Haulers

11 ADDRESS 1 3 8 4 0 S. Halsted COMMUNITY Riverdale

COUNTY Cook STATE IL ZIP 6 0 6 2 7 WASTE HAULER TRANSACTION CODE (Agency Use)

12 AREA CODE 3 1 2 TELEPHONE 8 4 1 7 0 2 0

WASTE GENERATOR

13 GENERATOR CODE 1 9 5 0 5 0 0 8 3 G HEADING Sexton / Des Plaines

NAME National Manufacturing

14 ADDRESS P O Box 5 7 7 COMMUNITY Sterling

COUNTY Whiteside STATE IL ZIP 6 1 0 8 1 WASTE GENERATOR TRANSACTION CODE (Agency Use)

15 AREA CODE 8 1 5 TELEPHONE 6 2 5 1 3 2 0

GENERATOR CONTACT NAME D. P. Dosner

20 DUNS NUMBER SIC CODE 3 4 2 3 IEPA

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OCT 30 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

PROCESS NAME Hardware Manufacturer

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Caustic Rinse Water

40 IUPAC WASTE NAME

TOTAL ANNUAL WASTE VOLUME 4 8 0 0 0 VOLUME UNITS 2 WASTE PHASE 3

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 5 NEUTRALIZATION METHOD 0 4 DISPOSAL METHOD 0 1

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

RECEIVED
DEC 11 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

CARD TYPE L P S W C (1–6) REGION N (8) SITE CODE 0 3 1 0 6 3 0 1 (9–16) AUTHORIZATION NUMBER 7 8 2 0 9 5 (17–22) TRANS CODE A (23)

DATE ENTERED (Agency Use) 24 1 / 25 26 / 27 28 / 29

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50 (6–7)

INHALATION TOXICITY 1 (30) DERMAL TOXICITY 1 (31) INGESTIVE TOXICITY 1 (32) INFECTIOUS ___ (33) REACTIVITY ___ (34) EXPLOSIVE ___ (35)

FLASH POINT 2 0 0 (36–39) °F ALPHA RADIATION ___ (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY ___ . ___ (47–49) PERCENT ALKALINITY ___ . ___ (50–52) pH 1 3 . 7 (53–55) xf ___ . ___ (56–60)

60 (6–7)

KEY (30–31)	COMPONENT NAME (32–50)	PERCENT (51–54)	KEY (55–56)	COMPONENT NAME (57–75)	PERCENT (76–79)
1	Water	91.0	2		.
3	Caustic cleaner	9.0	4		.
5		.	6		.

70 (6–7)

METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)	METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)
CN	0 1	0.0	.	Ag	0 2	.	.
Al	0 3	.	.	As	0 4	.	.
Ba	0 5	.	.	Be	0 6	.	.
Bi	0 7	.	.	Ca	0 8	.	.
Cd	0 9	.	.	Cr	1 0	0.0	.
Cr^{+6}	1 1	0.0	.	Cu	1 2	.	.
Fe	1 3	.	.	Hg	1 4	.	.
K	1 5	.	.	Li	1 6	.	.
Mg	1 7	.	.	Mn	1 8	.	.
Mo	1 9	.	.	Na	2 0	.	.
Ni	2 1	.	.	P	2 2	0.0	.
Pb	2 3	.	.	Pd	2 4	.	.
Se	2 5	.	.	Si	2 6	.	.
Sn	2 7	.	.	Sr	2 8	.	.
Ti	2 9	.	.	V	3 0	.	.
Y	3 1	.	.	Zn	3 2	750.0	.

80 (6–7)

LABORATORY NAME (30) National Manufacturing

CERTIFICATION NUMBER ___ (50–59) REVIEWED BY: KEM, JEC MKR (60–65)

90 (6–7)

STATUS A (30) TRANSACTION DATE 1 / 1 / 1 (31–36) EXPIRATION DATE 1 / 05 / 79 (37–42)

SIGNATURE [signature] (Land Disposal Site Operator or Agent) SIGNATURE _____ (Site Engineer)

ADM-1067 (REV. 7/78)

NATIONAL MANUFACTURING CO.
builders' hardware
PO BOX 577 • STERLING, ILLINOIS 61081 • (815) 625-1320

September 14, 1978

Scrap Handlers, Inc.
13840 South Halsted
Riverdale, Il 60627

Attention: Mr. James Hoelzeman

Dear Mr. Hoelzeman:

As per your request we are sending you the results of the tests we performed on a sample of the solution your firm disposed of from National. They are as follows:

CN	Neg.
CR^6	Neg.
CR^3	Neg.
PH	13.7
CV	Neg.
ZN	750 ppm
Phos.	Neg.

I hope this information assists you in your endeavor to obtain a permit and if we can be of any further assistance please do not hesitate to call

pH 13.7

Very truly yours,

D. P. Dorner
Safety Director

DPD/mh

RECEIVED
SEP 17 1978
SCRAP HAULERS
RIVERDALE, ILLINOIS

4,000 / 100

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

DISPOSAL SITE

CARD TYPE HEADING Sexton / Des Plaines COUNTY Cook DATE 2/20/79

LPSWC REGION N SITE CODE 03106301 AUTHORIZATION NUMBER 190319 TRANS CODE A

DATE ENTERED (Agency Use) / /

WASTE HAULER

PERMIT ISSUED

10 HAULER CODE 0430350002 H HEADING Sexton / Des Plaines

NAME American Waste Haulers (Vaydik)

11 ADDRESS 15W454 Lexington COMMUNITY Elmhurst

COUNTY Cook STATE IL ZIP 60126 WASTE HAULER TRANSACTION CODE (Agency Use)

12 AREA CODE 312 TELEPHONE 6813999

WASTE GENERATOR

13 GENERATOR CODE 0310510007 G HEADING Sexton / Des Plaines

NAME Western Electric

14 ADDRESS Cicero & Cermak COMMUNITY Cicero

COUNTY Cook STATE IL ZIP 60650 WASTE GENERATOR TRANSACTION CODE (Agency Use)

15 AREA CODE 312 TELEPHONE 4943232

GENERATOR CONTACT NAME Mr. Dyer

20 DUNS NUMBER SIC CODE 347 IEPA

PROCESS NAME Electronic Component Mfg.

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Tramp Oil Sludge Waste

40 IUPAC WASTE NAME

TOTAL ANNUAL WASTE VOLUME 300000 VOLUME UNITS 2 WASTE PHASE 3

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 3 NEUTRALIZATION METHOD DISPOSAL METHOD 01

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

RECEIVED
APR 4 1979
ILLEPA - D.L.P.C.
NORTHERN REGION

RECEIVED
FEB 28 1979
E.P.A. - D.L.P.C.
STATE OF ILLINOIS

CARD TYPE L P S W C (1–6) REGION H (8) SITE CODE 0 3 1 0 6 3 0 1 (9–18) AUTHORIZATION NUMBER (17–22) TRANS CODE (23)

DATE ENTERED (Agency Use) (24–25) / (26–27) / (28–29)

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50 (6–7)

INHALATION TOXICITY 1 (30) DERMAL TOXICITY 1 (31) INGESTIVE TOXICITY 2 (32) INFECTIOUS (33) REACTIVITY (34) EXPLOSIVE (35)

FLASH POINT 200 (36–39) °F ALPHA RADIATION (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY (47–49) PERCENT ALKALINITY (50–52) pH 9.5 (53–55) xf (56–60)

60 (6–7)

KEY	COMPONENT NAME	PERCENT	KEY	COMPONENT NAME	PERCENT
1 (30)	Water (31–50)	84.0 (51–54)	2 (55)	(56–75)	. (76–79)
3 (30)	Sludge (Ash, Oil, Grime) (31–50)	16.0 (51–54)	4 (55)	(56–75)	. (76–79)
5 (30)	(31–50)	. (51–54)	6 (55)	(56–75)	. (76–79)

70 (6–7)

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01 (30–31)	1.2 (32–39)	. (40–47)	Ag	02 (30–31)	. (32–39)	. (40–47)
Al	03	.	.	As	04	0.3	.
Ba	05	.	.	Be	06	.	.
Bi	07	.	.	Ca	08	.	.
Cd	09	11.4	.	Cr	10	8.5	.
Cr^{+6}	11	.	.	Cu	12	13.6	.
Fe	13	.	.	Hg	14	0.5	.
K	15	.	.	Li	16	.	.
Mg	17	.	.	Mn	18	.	.
Mo	19	.	.	Na	20	.	.
Ni	21	13.5	.	P	22	.	.
Pb	23	27.8	.	Pd	24	.	.
Se	25	.	.	Si	26	.	.
Sn	27	.	.	Sr	28	.	.
Ti	29	.	.	V	30	.	.
Y	31	.	.	Zn	32	31.6	.

80 (6–7) LABORATORY NAME (30–49) Allied Labs

CERTIFICATION NUMBER (50–59) REVIEWED BY: (60–65) Thomas E. Cavanagh

90 (6–7) STATUS A (30) TRANSACTION DATE 03 / 30 / 79 (31–36) EXPIRATION DATE 03 / 30 / 80 (37–42)

SIGNATURE (Land Disposal Site Operator or Agent) SIGNATURE (Site Engineer)

ADM-1067 (REV. 7/78)

15-6 W-7

LABORATORY REPORT FORM

DATE SAMPLE RECD. 10/77 DATE LABORATORY REPORT 11/12/77

ANALYTICAL INFORMATION

No.	Test	Value	Units	No.	Test	Value	Unit
04	ph	9.5		12	Flash Point		
09	Total Diss. Sol.	2.4	%	95	Gas Chrom.		
11	Sludge Volume	13.6	%	96	Infra Red		
14	Sp. Gravity			40	Sulfur		
18	C.O.D.			22	Ash		
22	Ash	4.7	%	99	B.T.U.		
48	Arsenic	0.33	ug/g	91	#1 Plasma Casette		
49	Barium				Cd	11.4	ug/g
66	Mercury	0.5	ug/l		Cr	8.5	ug/g
16	Cyanide	1.2	ug/l		Cu	13.6	ug/g
41	Acid Titer				Pb	27.8	ug/g
42	Base Titer				Zn	31.6	ug/g
31	Kjeldahl N			24	Ether Extraction		
25	Hydrocarbons				Nickel	13.5	ug/g
					Phenols	0.5	ug/l

CHEMIST: Irv Domsky

RECOMMENDATIONS:

This sludge waste comes from the electoonics industry, and exhibits a high ph to reflect pre-treatment to prevent the emmssion of HCN and other leachable contaminants. The heavy metal concentration should b e monitored to prevent exceeding 250 ppm.

Disposition: [redacted]

Suppl. Permit No.

WORK DONE BY Allied Laboratory APPROVED BY

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

PERMIT ISSUED

DISPOSAL SITE

CARD TYPE HEADING Sexton / Des Plaines COUNTY Cook DATE 12/5/78

L P S W C REGION N SITE CODE 0310630 1 AUTHORIZATION NUMBER 790025 TRANS CODE A

DATE ENTERED (Agency Use) / /

WASTE HAULER

10 HAULER CODE 0312580002 H HEADING Sexton / Des Plaines

NAME Scrap Haulers

11 ADDRESS 13840 S. Halsted COMMUNITY Riverdale

COUNTY Cook STATE IL ZIP 60627 WASTE HAULER TRANSACTION CODE (Agency Use)

12 AREA CODE 312 TELEPHONE 8417020

WASTE GENERATOR

13 GENERATOR CODE 0311110006 G HEADING Sexton / Des Plaines

NAME Allied Tube Corp.

14 ADDRESS 16100 S. Lathrop COMMUNITY Harvey

COUNTY Cook STATE IL ZIP 60426 WASTE GENERATOR TRANSACTION CODE (Agency Use)

15 AREA CODE 312 TELEPHONE 3391610

GENERATOR CONTACT NAME Bob Shepard Ex 265

20 DUNS NUMBER SIC CODE 3011 IEPA

PROCESS NAME Tube Manufacturer

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Alkaline Rinse Solution

40 IUPAC WASTE NAME

TOTAL ANNUAL WASTE VOLUME 416000

VOLUME UNITS 2
1 = CUBIC YARDS
2 = GALLONS

WASTE PHASE 3
1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 4 NEUTRALIZATION METHOD 04 DISPOSAL METHOD 01

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

RECEIVED
FEB 1 1979
ILL.E.P.A. – D.L.P.C.
NORTHERN REGION

RECEIVED
DEC 22 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

CARD TYPE L P S W C (1–6) REGION N (8) SITE CODE 03106301 (9–16) AUTHORIZATION NUMBER ____ (17–22) TRANS CODE ____ (23)

DATE ENTERED (Agency Use) __ / __ / __ (24–29)

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50–67

INHALATION TOXICITY 1 (30) DERMAL TOXICITY 1 (31) INGESTIVE TOXICITY 1 (32) INFECTIOUS ____ (33) REACTIVITY ____ (34) EXPLOSIVE ____ (35)

FLASH POINT 200 °F (36–39) ALPHA RADIATION ____ (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY ____ (47–49) PERCENT ALKALINITY ____ (50–52) pH 12.7 (53–55) xf ____ (56–60)

60–67

KEY (30–31)	COMPONENT NAME (31–50)	PERCENT (51–54)	KEY (55)	COMPONENT NAME (56–75)	PERCENT (76–79)
1	Water	99.1	2		
3	Ash	0.6	4		
5	inorganic Solids	0.3	6		

70–67

METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)	METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)
CN	01	0.0		Ag	02		
Al	03			As	04	0.1	
Ba	05			Be	06		
Bi	07			Ca	08		
Cd	09	0.1		Cr	10	0.2	
Cr^{+6}	11			Cu	12	0.2	
Fe	13			Hg	14	0.0	
K	15			Li	16		
Mg	17			Mn	18		
Mo	19			Na	20		
Ni	21	0.1		P	22		
Pb	23	0.2		Pd	24		
Se	25			Si	26		
Sn	27			Sr	28		
Ti	29			V	30		
Y	31			Zn	32	2.4	

80–67

LABORATORY NAME Right Turn (30–49)

CERTIFICATION NUMBER ____ (50–59) REVIEWED BY: Thomas E. Carmack (60–65)

90–67

STATUS A (30) TRANSACTION DATE 01 / 30 / 79 (31–36) EXPIRATION DATE 01 / 30 / 80 (37–42)

SIGNATURE Brad R. Pinkard (Land Disposal Site Operator or Agent) SIGNATURE ____ (Site Engineer)

ADM-1067 (REV. 7/78)

MICRO-COMMERCIAL LABORATORY FIELD SERVICES
AND CUSTOM PROGRAMS AVAILABLE
CHEMICAL, PHYSICAL BIOLOGICAL
IN ALL MEDIA GAS, LIQUID, SOLID
ANALYSIS AND CONSULTING
EXPERTS IN INDUSTRIAL WASTE

RAY SCHULER

right turn
1007 N STRATFORD RD • ARLINGTON HEIGHTS, IL 60004
312/631-0830

ABORATORIES, LTD.

7011 W. HIGGINS AVENUE CHICAGO, ILLINOIS 60656

RT

REPORT NO. 9553

DATE November 21, 1978

SAMPLE DESCRIPTION:
Scrap Haulers

TO

Mr. Ray Schuler
The Right Turn
1007 N. Stratford Road
Arlington Heights, IL 60004

RECEIVED: October 26, 1978

	1A Dreeblain paint 9/12/78	3C RR Donnelly Warsaw 9/13/78 WCM sludge	3C Allied Tube Alky Water 9/14/78
Arsenic	0.15 mg/l	<0.01 mg/l	0.15 mg/l
Cadmium	0.1 mg/l	<0.1 mg/l	<0.1 mg/l
Chromium	8.5 mg/l	1000 mg/l	0.2 mg/l
Copper	6.5 mg/l	3300 mg/l	0.2 mg/l
Lead	20 mg/l	4.6 mg/l	0.2 mg/l
Mercury	1.20 mg/l	<.005 mg/l	<.005 mg/l
Nickel	3.5 mg/l	2.9 mg/l	<0.1 mg/l
Zinc	87 mg/l	34 mg/l	2.4 mg/l
Cyanides	<.01 mg/l	.51 mg/l	.025 mg/l
Phenols	0.68 mg/l	10.6 mg/l	0.06 mg/l
pH	6.7	4.6	12.7
Total Diss. Solids	0.62 %	1.37 %	0.64 %
Total Solids	38.1 %	2.9 %	0.9 %
Ash	31.3 %	2.3 %	0.6 %
Flash Point	190° F	none	none
Sludge vol.	43.5 %	17 %	<0.1 %

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES INC

Irving I. Domsky
Laboratory Director

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

DISPOSAL SITE

CARD TYPE HEADING Sexton / Des Plaines COUNTY Cook DATE 4/20/79

L P S W C REGION N SITE CODE 0310630 1 AUTHORIZATION NUMBER 790818 TRANS CODE A

DATE ENTERED (Agency Use) / / PERMIT ISSUED

WASTE HAULER

10 HAULER CODE 2010300004 H HEADING Sexton / Des Plaines

NAME Interstate Pollution control

11 ADDRESS 1525-9th. St. COMMUNITY Rockford

COUNTY Winebago STATE IL ZIP 61108 WASTE HAULER TRANSACTION CODE (Agency Use)

12 AREA CODE 815 TELEPHONE 9646114

WASTE GENERATOR

13 GENERATOR CODE 0070100001 G HEADING Sexton / Des Plaines

NAME Capron Mfg. Co. 569-2301

14 ADDRESS 135 S. 4th. St COMMUNITY Capron

COUNTY Boone STATE IL ZIP 61012 WASTE GENERATOR TRANSACTION CODE (Agency Use)

15 AREA CODE 815 TELEPHONE 5692301

GENERATOR CONTACT NAME Fred Bryan

20 DUNS NUMBER SIC CODE 3471 IEPA

PROCESS NAME Metal Plating

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Plating Sludge

40 IUPAC WASTE NAME

TOTAL ANNUAL WASTE VOLUME 48000 VOLUME UNITS 2 WASTE PHASE 2

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 6 NEUTRALIZATION METHOD DISPOSAL METHOD 01

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

Bulk

RECEIVED
MAY 20 1979
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

RECEIVED
APR 20 1979
ILL.E.P.A. – D.L.P.C.
NORTHERN REGION

CARD TYPE L P S W C (1–6) REGION N (8) SITE CODE 0 3 1 0 6 3 0 1 (9–16) AUTHORIZATION NUMBER (17–22) TRANS CODE (23)

DATE ENTERED (Agency Use) (24–25) / (26–27) / (28–29)

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50 (6–7)

INHALATION TOXICITY 1 (30) DERMAL TOXICITY 1 (31) INGESTIVE TOXICITY 3 (32) INFECTIOUS (33) REACTIVITY (34) EXPLOSIVE (35)

FLASH POINT 200 °F (36–39) ALPHA RADIATION (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY (47–49) PERCENT ALKALINITY (50–52) pH 7.8 (53–55) xf (56–60)

60 (6–7)

KEY (30)	COMPONENT NAME (31–50)	PERCENT (51–54)	KEY (55)	COMPONENT NAME (56–75)	PERCENT (76–79)
1	Water	80.2	2		
3	Metals, oils, dirt	19.8	4		
5			6		

70 (6–7)

METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)	METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)
CN	01	14.2		Ag	02		
Al	03			As	04	0.1	
Ba	05			Be	06		
Bi	07			Ca	08		
Cd	09	1.3		Cr^{+3}	10	1156	152
Cr^{+6}	11	17.1		Cu	12	231	108
Fe	13	26250	4961	Hg	14	0.0	
K	15			Li	16		
Mg	17			Mn	18		
Mo	19			Na	20		
Ni	21	486	126	P	22		
Pb	23	50.9		Pd	24		
Se	25	0.0		Si	26		
Sn	27			Sr	28		
Ti	29			V	30		
Y	31			Zn	32	11.1	

80 (6–7)

LABORATORY NAME (30–49) Met-Chem Consultants

CERTIFICATION NUMBER (50–59) REVIEWED BY: (60–62) Thomas E. Cavanagh

90 (6–7)

STATUS A (30) TRANSACTION DATE 06 / 15 / 79 (31–36) EXPIRATION DATE 06 / 15 / 80 (37–42)

SIGNATURE (Land Disposal Site Operator or Agent) SIGNATURE (Site Engineer)

ADM-1067 (REV. 7/78)

est 79-172

MET-CHEM CONSULTANTS, INC.

1319 Cunningham St. • Rockford, Ill.

Phone 815/962-4910

CAPRON MANUFACTURING COMPANY
135 South 4th. Street
Capron, Illinois 61012

Attention: Mr. Fred Bryan

SAMPLE(S) RECEIVED: February 9, 1979 SAMPLE I.D.: PLATING PROCESS SLUDGE

Sample / Date				PROFILE			LEACH		PERCENT LEACHABLE	
pH	7.76									
%TOTAL SOLIDS	19.8%									
CADMIUM				1.3			N/A			
CHROME+3				1156			152		13.1%	
CHROME+6				17.1			N/A			
COPPER				231			108		46.8%	
LEAD				50.9			N/A			
NICKEL				486			126		25.9%	
ZINC				77.1			N/A			
CYANIDE				14.2			N/A			
IRON				26,250			4,961		18.9%	

All results in mg/l unless otherwise specified.

Results by:

Nancy J. Fry
2-27-79

Chemist

Completed:

MC #1—RL

RECEIVED
SEP 13 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

DISPOSAL SITE

HEADING 03106301 NAME Sexton COUNTY Cook DATE 7-30-78

LPSWC 1 5 6 7 REGION N 8 SITE CODE 03 1 1 4 3 0 1 9 16 AUTHORIZATION NUMBER 78 L 4 1 8 17 22 TRANSACTION CODE A 23

WASTE HAULER

10 HAULER CODE 03 1 2 9 4 0 0 0 1 24 H 34 HEADING DCS PLAINES / SEXTON 35 54

NAME Liquid Dynamics 55 74

11 ADDRESS 3202 S State St. 24 38 COMMUNITY So. Chicago Hts. 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60411 66 70 AREA CODE 312 71 73

TELEPHONE 7562548 74 80

WASTE GENERATOR

12 GENERATOR CODE 03 1 6 0 0 1 1 4 24 33 G 34 HEADING DCS PLAINES / SEXTON 35 54

NAME Acme Printing Ink Co. 55 74

13 ADDRESS 1419 W. Carroll 24 38 COMMUNITY Chicago 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60607 66 70 AREA CODE 312 71 73

TELEPHONE 4210675 74 80

RECEIVED
AUG 7 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

20 DUNS NUMBER 24 32 SIC CODE 2893 33 36 IEPA NUMBER 37 39

PROCESS NAME Printing Ink Manufacture 40 59

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Alkaline Cleaner rinse 24 53

40 IUPAC WASTE NAME 24 53

TOTAL WASTE 10,000 54 63

VOLUME UNITS __1.TONS __2.CUBIC YARDS X3.GALLONS 64 WASTE PHASE __1.SOLID __2.SEMI-SOLID X3.LIQUID __4.GAS 65

TRANSPORT FREQUENCY __1.ONE TIME __2.DAILY __3.WEEKLY __4.BI-WEEKLY X5.MONTHLY __6.BI-MONTHLY __7.QUARTERLY

__8.SEMI-ANNUALLY 66 NEUTRALIZATION METHOD 67 68 DISPOSAL METHOD 01 69 70

WASTE CHARACTERISTICS

50 INHALATION TOXICITY x 1.LOW __ 2.MEDIUM __ 3.HIGH __ (24) DERMAL TOXICITY x 1.LOW __ 2.MEDIUM __ 3.HIGH __ (25)

INGESTION TOXICITY x 1.LOW __ 2.MEDIUM __ 3.HIGH __ (26) INFECTIOUS __ 1.LOW __ 2.MEDIUM __ 3.HIGH __ (27)

ALPHA RADIATION (28) ____ (33) (pCi/L) EXPLOSIVE __ 1.LOW __ 2.MEDIUM __ 3.HIGH __ (34) FLASH POINT 200 (35–38)

REACTIVITY __ 1.LOW __ 2.MEDIUM __ 3.HIGH __ (39) PERCENT ACIDITY (40) ___ . (42) PERCENT ALKALINITY (43) ___ . (45) pH 12.2 (46–48)

xf (49) ___ . (54) __ 1.ORGANIC x 2.INORGANIC __ (55)

60

KEY	COMPONENT NAME	PERCENT (THREE CARDS POSSIBLE)	KEY	COMPONENT NAME	PERCENT
1 (24)	Waste Sludge (25–44)	2.6 (45–48)	2 (49)	(50–69)	(70–73)
3 (24)	Ash (25–44)	3.3 (45–48)	4 (49)	(50–69)	(70–73)
5 (24)	(25–44)	(45–48)	6 (49)	(50–69)	(70–73)

70

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01 (24–25)	3.15 (26–33)	(34–41)	MG	17		
Ag	02			Mn	18		
Al	03			Mo	19		
As	04	.1		Na	20		
Ba	05			Ni	21	0.1	
Be	06			P	22		
Bi	07			Pb	23	154	
Ca	08			Pd	24		
Cd	09	1.6		Se	25		
Cr	10	76		Si	26		
Cr^{+6}	11			Sn	27		
Cu	12	11.4		Sr	28		
Fe	13			Ti	29		
Hg	14	.001		V	30		
Ka	15			Y	31		
Li	16			Zn	32	5.4	

80 LABORATORY NAME Allied labs (24–43)

CERTIFICATION NUMBER (44–53) APPROVED BY: MLR, TEC (54–59) 9/5/18 Expires 9/5/19

LAND DISPOSAL SITE OPERATOR OR AGENT SITE ENGINEER

SIGNATURE Dennis Johnson SIGNATURE

ADM-1067 (1/77)

LIQUID DYNAMICS

Division Of Environmental Dynamics
501 Richton Road
Steger, Illinois 60475

LABORATORY REPORT

ANALYTICAL INFORMATION

L D # 5-80

P O #

LAB REPORT # 9135-9

TEI #

SIC #

SAMPLE RECEIVED 3/3/78

DATE OF LAB REPORT 3/17/78

CUSTOMER

	TEST	VALUE	UNITS
	PH TOTAL DISOLVED SOLIDS	12.2 7.10	%
	SLUDGE VOLUME	2.6	%
	SLUDGE GRAVITY		
	C O D		
	ASH	3.29	%
	ARSENIC	<100	ug/l
	BARIUM		
	MERCURY	<1	ug/l
	CYANIDE (Green Pb)	3150	ug/l
	ACID TITER		
	BASE TITER		
	DAHLN HYDROCARBONS		
	Total Solids	10.16	%

	TEST	VALUE	UNITS
	FLASH POINT	No Flash	
	GAS CHROMATOGRAM		
	INFRA RED		
	SULFUR		
	ASH	3.29	%
	ENERGY VALUE		
	1" PLASMA CASSETTE		
	CADMIUM	1.6	mg/l
	CHROMIUM	76	mg/l
	COPPER	11.4	mg/l
	LEAD	154	mg/l
	ZINC	5.4	mg/l
	ETHER EXTRACTION		
	Nickel	<0.1	mg/l

COMMENTS

CHEMIST

DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

DISPOSAL SITE

ARD
YPE HEADING Sexton / Des Plaines COUNTY Cook DATE 2/10/79

L P S W C REGION N SITE CODE 0310630 1 AUTHORIZATION NUMBER 790241 TRANS CODE A

DATE ENTERED (Agency Use) / /

PERMIT ISSUED

WASTE HAULER

10 HAULER CODE 0310270002 H HEADING Sexton / Des Plaines

NAME Reliable liquid cont.

11 ADDRESS 7700 W. 88th. St. COMMUNITY Bridgeview

COUNTY Cook STATE IL ZIP 60455 WASTE HAULER TRANSACTION CODE (Agency Use)

12 AREA CODE 312 TELEPHONE 5980450

WASTE GENERATOR

13 GENERATOR CODE 0310450008 G HEADING Sexton / Des Plaines

NAME Ford Motor Co.

14 ADDRESS 1000 E. Lincoln COMMUNITY Chicago Hts.

COUNTY Cook STATE IL ZIP 60411 WASTE GENERATOR TRANSACTION CODE (Agency Use)

15 AREA CODE 312 TELEPHONE 7575700

GENERATOR CONTACT NAME Jack Roher

20 DUNS NUMBER SIC CODE 3711 IEPA

PROCESS NAME Stamping Plant

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Lime Wastewater

40 IUPAC WASTE NAME

TOTAL ANNUAL WASTE VOLUME 520000 VOLUME UNITS 2 WASTE PHASE

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 3 NEUTRALIZATION METHOD DISPOSAL METHOD 01

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

RECEIVED
MAR 21 1979
ILL.E.P.A. – D.L.P.C.
NORTHERN REGION

RECEIVED
FEB 13 1979
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

CARD TYPE L P S W C (1–6) REGION N (8) SITE CODE 0 3 1 0 6 3 0 1 (9–16) AUTHORIZATION NUMBER (17–22) TRANS CODE (23)

DATE ENTERED (Agency Use) (24–25) / (26–27) / (28–29)

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50 (6–7)

INHALATION TOXICITY 1 (30) DERMAL TOXICITY 1 (31) INGESTIVE TOXICITY 1 (32) INFECTIOUS (33) REACTIVITY (34) EXPLOSIVE (35)

FLASH POINT 200 °F (36–39) ALPHA RADIATION (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY (47–49) PERCENT ALKALINITY (50–52) pH 10.7 (53–55) xf (56–60)

60 (6–7)

KEY (30)	COMPONENT NAME (31–50)	PERCENT (51–54)	KEY (55)	COMPONENT NAME (56–75)	PERCENT (76–79)
1	lime slurry	93.0	2		
3	Water	4.0	4		
5	Ash	2.6	6		

70 (6–7)

METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)	METAL	KEY (30–31)	TOTAL (32–39)	LEACH (40–47)
CN	01	0.1		Ag	02		
Al	03			As	04	0.0	
Ba	05			Be	06		
Bi	07			Ca	08		
Cd	09	0.1		Cr	10	82.0	
Cr^{+6}	11			Cu	12	1.2	
Fe	13			Hg	14	1.0	
K	15			Li	16		
Mg	17			Mn	18		
Mo	19			Na	20		
Ni	21	0.1		P	22		
Pb	23	7.4		Pd	24		
Se	25			Si	26		
Sn	27			Sr	28		
Ti	29			V	30		
Y	31			Zn	32	5.6	

80 (6–7)

LABORATORY NAME Allied labs (30–49)

CERTIFICATION NUMBER (50–59) REVIEWED BY: Kim Thomas E. Cavanaugh (60–61)

90 (6–7)

STATUS A (30) TRANSACTION DATE 05 / 15 / 79 (31–36) EXPIRATION DATE 03 / 15 / 80 (37–42)

SIGNATURE Brock B. Rinker (Land Disposal Site Operator or Agent) SIGNATURE _____ (Site Engineer)

ADM-1067 (REV. 7/78)

TO: Reliable Liquid Control
7700 W. 88th Street
Bridgeview Illinois

LABORATORY REPORT NUMBER: 9068-9
T.E.I. NUMBER:
DATE SAMPLE RECEIVED: 12/10/77
DATE OF LABORATORY REPORT: 1/26/78

NO.		TEST	VALUE	UNITS
04		PH	10.0 - 12.0	
09		TOTAL DISSOLVED SOLIDS	0.14	%
11		SLUDGE VOLUME	95	%
13		SPECIFIC GRAVITY		
18		C.O D.		
22		ASH	2.61	%
48		ARSENIC	.037 37	mg/l ug/l
49		BARIUM		
66		MERCURY	<1	ug/l
16		CYANIDE	.042 92	mg/l ug/l
11		ACID TITER		
2		BASE TITER		
1		KJELDAHL N		
5		HYDROCARBONS		

NO.		TEST	VALUE	UNITS
12		FLASH POINT	No Flash	
95		GAS CHROMATOGRAM		
96		INFRA RED		
40		SULFUR		
22		ASH	2.61	%
14		ENERGY VALUE		
91		1# PLASMA CASETTE		
		CADMIUM	<0.1	mg/l
		CHROMIUM	82	mg/l
		COPPER	1.2	mg/l
		LEAD	7.4	mg/l
		ZINC	5.6	mg/l
24		ETHER EXTRACTION		
		Nickel	<0.1	mg/l
		Total Solids	9.98	%
		Phenols	2.66	mg/l

FEE $

CERTIFIED BY: [signature] — ALLIED LAB

RECEIVED
FEB 13 1979
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

DISPOSAL SITE

HEADING 0310630 NAME Sexton COUNTY Cook DATE 7-30-78

LPSWC 1 5 6 7 REGION N 8 SITE CODE 0310630 9 16 AUTHORIZATION NUMBER 781452 17 22 TRANSACTION CODE A 23

WASTE HAULER

10 HAULER CODE 0312940001 24 H 34 HEADING DES PLAINES / SEXTON 35 54

NAME Liquid Dynamics 55 74

11 ADDRESS 3202 S. State St. 24 38 COMMUNITY So. Chicago Hts. 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60411 66 70 AREA CODE 312 71 73

TELEPHONE 7562548 74 80

WASTE GENERATOR

12 GENERATOR CODE 0311950004 24 G 33 34 HEADING DES PLAINES / SEXTON 35 54

NAME III Harper 55 74

13 ADDRESS 8200 Lehigh Ave 24 38 COMMUNITY Morton Grove 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60053 66 70 AREA CODE 312 71 73

TELEPHONE 9666000 74 80

20 DUNS NUMBER 24 32 SIC CODE 3469 33 36 IEPA NUMBER 37 39

PROCESS NAME Metal Stamping Manufacturing 40 69

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Stamping Parts rinse 24 53

40 IUPAC WASTE NAME 24 53

TOTAL WASTE 100,000 54 63

VOLUME UNITS __1. TONS __2. CUBIC YARDS X3. GALLONS 64 WASTE PHASE __1. SOLID __2. SEMI-SOLID X3. LIQUID __4. GAS 65

TRANSPORT FREQUENCY __1. ONE TIME __2. DAILY __3. WEEKLY __4. BI-WEEKLY __5. MONTHLY __6. BI-MONTHLY __7. QUARTERLY

X8. SEMI-ANNUALLY 66 NEUTRALIZATION METHOD 67 68 DISPOSAL METHOD 01 69 70

RECEIVED

SEP 6 - 1978

ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

WASTE CHARACTERISTICS

50 INHALATION TOXICITY ✗1.LOW __2.MEDIUM __3.HIGH (24) DERMAL TOXICITY ✗1.LOW __2.MEDIUM __3.HIGH (25)

INGESTION TOXICITY ✗1.LOW __2.MEDIUM __3.HIGH (26) INFECTIOUS __1.LOW __2.MEDIUM __3.HIGH (27)

ALPHA RADIATION (28) — — — — (33) (pCi/L) EXPLOSIVE __1.LOW __2.MEDIUM __3.HIGH (34) FLASH POINT (35) 200 (38)

REACTIVITY __1.LOW __2.MEDIUM __3.HIGH (39) PERCENT ACIDITY (40) — . (42) PERCENT ALKALINITY (43) — . (45) pH (46) 9 . 7 (48)

xf (49) — — — . — (54) __1.ORGANIC ✗2.INORGANIC (55)

60

KEY	COMPONENT NAME	PERCENT (THREE CARDS POSSIBLE)	KEY	COMPONENT NAME	PERCENT
1 (24)	Sludge (25–44)	55.0 (45–48)	2 (49)	Copper (50–69)	.02 (70–73)
3 (24)	Chromium (25–44)	.04 (45–48)	4 (49)	(50–69)	. (70–73)
5 (24)	Nickel (25–44)	.03 (45–48)	6 (49)	(50–69)	. (70–73)

70

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01 (24–25)	.026 (26–33)	(34–41)	MG	17		
Ag	02			Mn	18		
Al	03			Mo	19		
As	04	.06		Na	20		
Ba	05			Ni	21	325	
Be	06			P	22		
Bi	07			Pb	23	6.6	
Ca	08			Pd	24		
Cd	09	0.1		Se	25		
Cr	10	400		Si	26		
Cr^{+6}	11			Sn	27		
Cu	12	245		Sr	28		
Fe	13			Ti	29		
Hg	14	.001		V	30		
Ka	15			Y	31		
Li	16			Zn	32	50	

80 LABORATORY NAME (24) Allied Laboratories (43)

CERTIFICATION NUMBER (44) — — — — — — — — — (53) APPROVED BY: (54) phb (56) / (57) TE Cavanagh Jr. (59) 8/31/78 Expires 8/31/79

LAND DISPOSAL SITE OPERATOR OR AGENT SIGNATURE Dennis Johnson

SITE ENGINEER SIGNATURE

ADM-1067 (1/77)

LIQUID DYNAMICS

Division Of Environmental Dynamics
501 Richton Road
Steger, Illinois 60475

ITT Harper

L.D.# 5-45

P.O.#

LAB. REPORT # ALLIED LABORATORIES 9224

TEI #

SIC #

SAMPLE RECEIVED April 14, 1978

DATE OF LAB. REPORT April 24. 1978

LABORATORY REPORT

ANALYTICAL INFORMATION

CUSTOMER: ITT HARPER
8200 Lehigh Avenue
Morton Grove, Illinois 60053

	TEST	VALUE	UNITS
	PH TOTAL DISOLVED SOLIDS	0.07	%
	SLUDGE VOLUME	55	%
	SLUDGE GRAVITY		
	C O D.		
	ASH	2.42	%
	ARSENIC (.06 ppm)	600	ug/l
	BARIUM		
	MERCURY	<10	ug/l
	CYANIDE (.0265 ppm)	265	ug/l
	ACID TITER		
	BASE TITER		
	KJELDAHLN HYDROCARBONS		
	pH	9.7	
	Phenols	0.21	mg/l

	TEST	VALUE	UNITS
	FLASH POINT	NO FLASH	
	GAS CHROMATOGRAM		
	INFRA RED		
	SULFUR	---	
	ASH	2.42	%
	ENERGY VALUE		
	1# PLASMA CASSETTE		
	CADMIUM	<0.1	mg/l
	CHROMIUM	400	mg/l
	COPPER	245	mg/l
	LEAD	6.6	mg/l
	ZINC	50	mg/l
	ETHER EXTRACTION		
	Total Solids	3.80	%

Nickel 325 mg/l

COMMENTS

CHEMIST: Irving I. Domsky
Laboratory Director

Metal Stamping Manufact.
Vol. = 100,000 Gal/6Mo. Stamping Parts Rinse

LIQUID DYNAMICS

Division Of Environmental Dynamics
501 Richton Road
Steger, Illinois 60475

ITT Harper

L.D.# 5-45

P.O.#

LAB. REPORT # ALLIED LABORATORIES 9224

TEI #

SIC #

SAMPLE RECEIVED April 14, 1978

DATE OF LAB. REPORT April 24. 1978

LABORATORY REPORT

ANALYTICAL INFORMATION

CUSTOMER: ITT HARPER
8200 Lehigh Avenue
Morton Grove, Illinois 60053

	TEST	VALUE	UNITS
	PH TOTAL DISOLVED SOLIDS	0.07	%
	SLUDGE VOLUME	55	%
	SLUDGE GRAVITY		
	C O.D.		
	ASH	2.42	%
	ARSENIC (.06 ppm)	600	ug/l
	BARIUM		
	MERCURY	<10	ug/l
	CYANIDE (.0265 ppm)	265	ug/l
	ACID TITER		
	BASE TITER		
	KJELDAHLN HYDROCARBONS		
	pH	9.7	
	Phenols	0.21	mg/l
	Nickel	325	mg/l

	TEST	VALUE	UNITS
	FLASH POINT	NO FLASH	
	GAS CHROMATOGRAM		
	INFRA RED		
	SULFUR	---	
	ASH	2.42	%
	ENERGY VALUE		
	1" PLASMA CASSETTE		
	CADMIUM	<0.1	mg/l
	CHROMIUM	400	mg/l
	COPPER	245	mg/l
	LEAD	6.6	mg/l
	ZINC	50	mg/l
	ETHER EXTRACTION		
	Total Solids	3.80	%

COMMENTS:

CHEMIST: Irving I. Domsky
Laboratory Director

Metal Stamping Manufact.
Vol. = 100,000 Gal/6Mo. Stamping Parts Rinse

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

PERMIT ISSUED

DISPOSAL SITE

CARD TYPE HEADING Sexton / Des Plaines COUNTY Cook DATE 10/20/78

L P S W C REGION N SITE CODE 0310630 1 AUTHORIZATION NUMBER 782083 TRANS CODE A

DATE ENTERED (Agency Use) 10 / 20 / 78

WASTE HAULER

10 HAULER CODE 1110150002H HEADING Sexton / Des Plaines

NAME Crystal Lake Disposal

11 ADDRESS 6714 Sands Rd. COMMUNITY Crystal Lake

COUNTY McHenry STATE IL ZIP 60098 WASTE HAULER TRANSACTION CODE (Agency Use)

12 AREA CODE 815 TELEPHONE 4598580

WASTE GENERATOR

GENERATOR CODE 1110950001G HEADING Sexton / Des Plaines

NAME Woodstock Dye Casting

14 ADDRESS 555 Wheeler St. COMMUNITY Woodstock

COUNTY McHenry STATE IL ZIP 60098 WASTE GENERATOR TRANSACTION CODE (Agency Use)

15 AREA CODE 815 TELEPHONE 3380700

GENERATOR CONTACT NAME Mike Gaudiello

DUNS NUMBER SIC CODE 3471 IEPA

PROCESS NAME Metalic Dye Casting

RECEIVED
OCT 30 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Metal Bearing Sludge

40 IUPAC WASTE NAME

TOTAL ANNUAL WASTE VOLUME 2400 VOLUME UNITS 1 WASTE PHASE 2

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

TRANSPORT FREQUENCY 3 NEUTRALIZATION METHOD DISPOSAL METHOD 10

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

RECEIVED
DEC 11 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

CARD TYPE 2 - L P S W C (1–6) REGION N (8) SITE CODE 03106301 (9–16) AUTHORIZATION NUMBER 782083 (17–22) TRANS CODE A (23)

DATE ENTERED (Agency Use) 10/20/78 (24–29)

WASTE CHARACTERISTICS

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 30 through 35):

50 (6–7)

INHALATION TOXICITY 1 (30) DERMAL TOXICITY 1 (31) INGESTIVE TOXICITY 1 (32) INFECTIOUS ___ (33) REACTIVITY ___ (34) EXPLOSIVE ___ (36)

FLASH POINT 200 °F (36–39) ALPHA RADIATION ___ (40–45) (pCi/L) COMPOSITION 2 (46)

1=ORGANIC
2=INORGANIC

PERCENT ACIDITY ___ (47–49) PERCENT ALKALINITY ___ (50–52) pH 9.5 (53–55) xf ___ (56–60)

60 (6–7)

KEY	COMPONENT NAME	PERCENT	KEY	COMPONENT NAME	PERCENT
1 (30)	Water (31–50)	76.1 (51–54)	2 (55)	Total Metals (56–75)	10.0 (76–79)
3 (30)	Diatomaceous Earth (31–50)	2.0 (51–54)	4 (55)	Settler (56–75)	.5 (76–79)
5 (30)	Calcium (31–50)	11.4 (51–54)	6 (55)	(56–75)	. (76–79)

70 (6–7)

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01 (30–31)	0.0 (32–39)	. (40–47)	Ag	02 (30–31)	. (32–39)	. (40–47)
Al	03	300000	0.0	As	04	.	.
Ba	05	.	.	Be	06	.	.
Bi	07	.	.	Ca	08	.	.
Cd	09	.	.	Cr	10	2000.0	0.3
Cr^{+6}	11	.	.	Cu	12	5000.0	0.0
Fe	13	.	.	Hg	14	.	.
K	15	.	.	Li	16	.	.
Mg	17	.	.	Mn	18	.	.
Mo	19	.	.	Na	20	.	.
Ni	21	140000	4.3	P	22	.	.
Pb	23	.	.	Pd	24	.	.
Se	25	.	.	Si	26	.	.
Sn	27	.	.	Sr	28	.	.
Ti	29	.	.	V	30	.	.
Y	31	.	.	Zn	32	50000	0.1

80 (6–7)

LABORATORY NAME Woodstock Dye Casting (30–49)

CERTIFICATION NUMBER ___ (50–59) REVIEWED BY: KSM MVM TEC (60–62 63–65)

90 (6–7)

STATUS A (30) TRANSACTION DATE 12/05/78 (31–36) EXPIRATION DATE 12/05/79 (37–42)

SIGNATURE [signature] (Land Disposal Site Operator or Agent) SIGNATURE ___ (Site Engineer)

ADM-1067 (REV. 7/78)

WOODSTOCK DIE CASTING

Division of ELTRA Corporation
WOODSTOCK, ILLINOIS 60098
Area Code 815 - Phone 338-0700

October 30, 1974

Mr. Thomas P. Clark, Manager
Permit Section
Division of Land Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

Dear Mr. Clark,

This letter is in response to your letter of October 16, 1974 concerning the McHenry County Landfill acceptance of Woodstock Die Casting metal bearing sludge.

The sludge volume as indicated will vary depending upon our production requirements. The volume will be limited to a 10,000#/day maximum. Of this total the solid content will range between 18 and 23% by weight. Based on a 10,000# volume, a typical analysis would be as follows:

(a)	Water	79.73%
(b)	Solids	21.27%

Of the 21.27% solids content it can be analyzed as follows:

(a)	237# Nickel Bearing Sludge	60.4% Nickel
(b)	62# Copper Bearing Sludge	57.4% Copper
(c)	73# Zinc Bearing Sludge	65.8% Zinc
(d)	39# Chromium Bearing Sludge	50.5% Chromium

The remainder of the sludge consists of materials required to chemically remove the heavy metal contaminants. The remaining sludge is composed of:

(a)	1,142# of Calcium Bearing Sludge	- from Lime 11.4
(b)	300# of Aluminum Bearing Sludge	- from Aluminum Sulfate 3.0
(c)	200# of Diatamaceous Earth	- from Filter Powder 2.0
(d)	50# of Settling Aid	- from High Molecular Weight Polymers .05

As can be seen of the approximate 2,100# of solids from the 10,000# of sludge, 1,692# of material is added to precipitate the 431# of metal bearing materials.

The metal sludge portion of this material is a mixture of material that has been removed from between .50 mgd and .75 mgd of effluent. Due to the in plant flow and the low metal content of the waters, it is not economically practical or technically sound to remove further these metallic impurities.

Woodstock Die Casting has undergone an extensive program of construction to recycle plating rinse waters whenever possible by concentration and addition back to the process tanks.

H_2SO_4
96 hours
Atomic absorb.

Woodstock Die Casting

Woodstock, Illinois 60098

Phone: 815-338-0700

August 9, 1977

John Sexton Contractors
900 Jorie Blvd.,
Oak Brook, Illinois 60521

Attention: Mr. Dennis Johnson,
Division Manager

Gentlemen:

Tests were conducted on our waste sludge as required by I.E.P.A. Policy to determine if said sludge could prove suitable as a landfill material. Tests were conducted in accordance with Illinois Environmental Protection Agency Special and/or Hazardous Waste Permit Information Instructions - Module "E", Paragraph D, Procedure B. Our testing yielded the following concentrations:

(a)	Zinc (as metal)	.07 mg/L
(b)	Nickel (as metal)	4.3 mg/L
(c)	Copper (as metal)	.005 mg/L
(d)	Chromium, Total (as metal)	.28 mg/L

These measurements were performed using atomic absorption spectro-photometry.

It appears that the 10 Cu.Yd/Day of sludge produced would be suitable to be disposed at any landfill site falling into catagories of Type I, II, or III, without additional or special treatment.

If we can be of further help in this matter please contact the writer as required.

Very truly yours,

Michael A. Gaudiello

Michael A. Gaudiello,
Director of Technical Services

MAG:ek
ENC.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

RECEIVED
AUG 7 1978
E.P.A. – D.L.P.C.
STATE OF ILLINOIS

DISPOSAL SITE

HEADING 03106301 NAME Sexton COUNTY Cook DATE 8-1-78

LPSWC 1 5 6 7 REGION N 8 SITE CODE 03106301 9 16 AUTHORIZATION NUMBER 731446 17 22 TRANSACTION CODE A 23

WASTE HAULER

10 HAULER CODE 043035002 24 H 34 HEADING DES PLAINES / SEXTON 35 54
NAME Vaydik Inc. 55 74

11 ADDRESS 15W454 Lexington 24 38 COMMUNITY Elmhurst 39 53

COUNTY DuPage 54 63 STATE IL 64 65 ZIP 60126 66 70 AREA CODE 312 71 73

TELEPHONE 8325758 74 80

WASTE GENERATOR

12 GENERATOR CODE 031051000 24 G 33 34 HEADING DES PLAINES / SEXTON 35 54

NAME Western Electric Co. 55 74

13 ADDRESS Cicero & Cermak 24 38 COMMUNITY Cicero 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60650 66 70 AREA CODE 312 71 73

TELEPHONE 4943232 74 80

20 DUNS NUMBER 24 32 SIC CODE 3661 33 36 IEPA NUMBER 37 39

PROCESS NAME Telephone Communications Equip. 40 69

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Metallic "Process" Sludge 24 53

40 IUPAC WASTE NAME 24 53

TOTAL WASTE 3500 54 63

VOLUME UNITS __1.TONS __2.CUBIC YARDS X3.GALLONS 64 WASTE PHASE __1.SOLID __2.SEMI-SOLID X3.LIQUID __4.GAS 65

TRANSPORT FREQUENCY __1.ONE TIME __2.DAILY __3.WEEKLY __4.BI-WEEKLY X5.MONTHLY __6.BI-MONTHLY __7.QUARTERLY

__8.SEMI-ANNUALLY 66 NEUTRALIZATION METHOD 01 67 68 DISPOSAL METHOD 10 69 70 phl phone 8/24

RECEIVED
SEP 6 - 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

WASTE CHARACTERISTICS

50 INHALATION TOXICITY x 1.LOW __2.MEDIUM __3.HIGH __ (24) DERMAL TOXICITY x 1.LOW __2.MEDIUM __3.HIGH __ (25)

INGESTION TOXICITY __1.LOW x 2.MEDIUM __3.HIGH __ (26) INFECTIOUS __1.LOW __2.MEDIUM __3.HIGH __ (27)

ALPHA RADIATION ____ (28–33) (pCi/L) EXPLOSIVE __1.LOW __2.MEDIUM __3.HIGH __ (34) FLASH POINT 200 (35–38)

REACTIVITY __1.LOW __2.MEDIUM __3.HIGH __ (39) PERCENT ACIDITY __ . __ (40–42) PERCENT ALKALINITY __ . __ (43–45) pH 11.8 (46–48)

xf ____ . __ (49–54) __1.ORGANIC x 2.INORGANIC __ (55)

60

KEY	COMPONENT NAME	PERCENT (THREE CARDS POSSIBLE)	KEY	COMPONENT NAME	PERCENT
1	Ash	2.1	2		
3	Cyanide	3	4		
5			6		

70

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	01	3000.		MG	17		
Ag	02			Mn	18		
Al	03			Mo	19		
As	04			Na	20		
Ba	05			Ni	21	3.6	
Be	06			P	22		
Bi	07			Pb	23	.2	
Ca	08			Pd	24		
Cd	09	.07		Se	25		
Cr	10	0.7		Si	26		
Cr^{+6}	11			Sn	27		
Cu	12	680.		Sr	28		
Fe	13			Ti	29		
Hg	14	.4		V	30		
Ka	15			Y	31		
Li	16			Zn	32	90.	

80 LABORATORY NAME Trace Elements lab (24–43)

CERTIFICATION NUMBER ____ (44–53) APPROVED BY: phl (54–56) E Cavanaugh (57–59) 8/31/78

LAND DISPOSAL ~~SITE~~ OPERATOR OR AGENT SIGNATURE Dennis J. Lenson

SITE ENGINEER SIGNATURE _____ Expires 8/31/79

ADM-1067 (1/77)

Organization Ltd.
3426 Maple Lane
Hazelcrest, Ill. 60429

~~ECHO~~ ENVIRONMENTAL LABORATORY

LABORATORY REPORT
ANALYTICAL INFORMATION

ECHO NUMBER 15-4(2)
P.O. NUMBER
LABORATORY REPORT NUMBER #2896
T.E.I. NUMBER #6677
DATE SAMPLE RECEIVED 3/8/77
DATE OF LABORATORY REPORT 3/24/77

TO: Vaydik Inc.
15W454 Lexington Street
Elmhurst Illinois, 60126

NO.		TEST	VALUE	UNITS
04	X	PH	11.8	
09	X	TOTAL DISSOLVED SOLIDS	2.5	%
11	X	SLUDGE VOLUME	< 1	%
13		SPECIFIC GRAVITY		
18	X	C.O.D.	3430	ug/g
22	X	ASH	2.1	%
48		ARSENIC		
49		BARIUM		
66	X	MERCURY	<4	ug/l
16	X	CYANATE CYANIDE CLEANER	3000	ug/g
41		ACID TITER		
42		BASE TITER		
31		KJELDAHL N		
25		HYDROCARBONS		
	X	Volatile Solids	0.4	%
	X	O/R Potential	-280	mv

NO.		TEST	VALUE	UNI
12		FLASH POINT		
95		GAS CHROMATOGRAM		
96		INFRA RED		
40		SULFUR		
22		ASH		
14		ENERGY VALUE		
91		1 # PLASMA CASETTE		
		CADMIUM	< 0.07	ug/g
		CHROMIUM	0.72	ug/g
		COPPER	680	ug/g
		LEAD	< 0.22	ug/g
		ZINC	90	ug/g
24		ETHER EXTRACTION		
	x	Phenol	<0.1	ug/g
	x	Nickel	3.6	ug/g

LAB FEE $

CERTIFIED BY:

ECHO RECOMMENDATIONS The cyanide concentration in this sample is reflective of the "cyanate" form, and as long as ph remains in alkaline mode, the material needs no further fixation for landfilling.

DISPOSITION: Recommend disposal at Paxton, or Sexton DesPlaines

SUPPLEMENTARY PERMIT NUMBER

BY: Bill Petrich

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FINANCE SYSTEMS COMPANY
100 W. LA SALLE STREET - CHICAGO, ILLINOIS 60602
(312) 263-6333
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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

DISPOSAL SITE

HEADING 03106301 NAME Sexton COUNTY Cook DATE 8-1-78

LPSWC 1 5 6 7 REGION N 8 SITE CODE 03106301 9 16 AUTHORIZATION NUMBER 781459 17 22 TRANSACTION CODE A 23

WASTE HAULER

10 HAULER CODE 03118600001 24 H 34 HEADING DES PLAINES / SEXTON 35 54

NAME BSI/Van Der Molen 55 74

11 ADDRESS 5050 Lake St. 24 38 COMMUNITY Melrose Park 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60160 66 70 AREA CODE 312 71 73

TELEPHONE 2611093 74 80

WASTE GENERATOR

12 GENERATOR CODE 03160001 10 24 33 G 34 HEADING DES PLAINES / SEXTON 35 54

NAME Appleton Electronics Co. 55 74

13 ADDRESS 1701 Wellington 24 38 COMMUNITY Chicago 39 53

COUNTY Cook 54 63 STATE IL 64 65 ZIP 60657 66 70 AREA CODE 71 73

TELEPHONE 3272200 74 80

20 DUNS NUMBER 24 32 SIC CODE 3644 33 36 IEPA NUMBER 37 39

PROCESS NAME Electrical Parts Manufacturer 40 69

WASTE CHARACTERISTICS

30 GENERIC WASTE NAME Metallic "Process" Waste 24 53

40 IUPAC WASTE NAME 24 53

TOTAL WASTE 3,000 54 63

VOLUME UNITS __1.TONS __2.CUBIC YARDS x 3.GALLONS 64 WASTE PHASE __1.SOLID __2.SEMI-SOLID x 3.LIQUID __4.GAS 65

TRANSPORT FREQUENCY __1.ONE TIME __2.DAILY __3.WEEKLY __4.BI-WEEKLY x 5.MONTHLY __6.BI-MONTHLY __7.QUARTERLY

8.SEMI-ANNUALLY 66 NEUTRALIZATION METHOD 01 67 68 DISPOSAL METHOD 10 69 70 phb phone 8/24

RECEIVED
SEP 6 - 1978
ILL. E.P.A. – D.L.P.C.
STATE OF ILLINOIS

WASTE CHARACTERISTICS

50 INHALATION TOXICITY x 1.LOW __ 2.MEDIUM __ 3.HIGH __ (24) DERMAL TOXICITY x 1.LOW __ 2.MEDIUM __ 3.HIGH __ (25)

INGESTION TOXICITY __ 1.LOW x 2.MEDIUM __ 3.HIGH __ (26) INFECTIOUS __ 1.LOW __ 2.MEDIUM __ 3.HIGH __ (27)

ALPHA RADIATION (28) ____ (33) (pCi/L) EXPLOSIVE __ 1.LOW __ 2.MEDIUM __ 3.HIGH __ (34) FLASH POINT 200 (35) 200 (38)

REACTIVITY __ 1.LOW __ 2.MEDIUM __ 3.HIGH __ (39) PERCENT ACIDITY (40) ___ . (42) PERCENT ALKALINITY (43) ___ . (45) pH (46) 8 . 0 (48)

xf (49) ____ . (54) __ 1.ORGANIC x 2.INORGANIC __ (55)

60

KEY	COMPONENT NAME	PERCENT (THREE CARDS POSSIBLE)	KEY	COMPONENT NAME	PERCENT
1 (24)	Cyanide (25) (44)	(45) .	16 (48)	2 (49) zinc (50) (69)	12 . 0 (70) (73)
3 (24)	Cadmium (25) (44)	(45) .	52 (48)	4 (49) (50) (69)	(70) . (73)
5 (24)	Chromium (25) (44)	(45) 1 .	3 (48)	6 (49) (50) (69)	(70) . (73)

70

METAL	KEY	TOTAL	LEACH	METAL	KEY	TOTAL	LEACH
CN	0 1 (24) (25)	1600 (26) (33)	(34) (41)	MG	1 7		
Ag	0 2			Mn	1 8		
Al	0 3			Mo	1 9		
As	0 4			Na	2 0		
Ba	0 5			Ni	2 1	44	
Be	0 6			P	2 2		
Bi	0 7			Pb	2 3	250	
Ca	0 8			Pd	2 4		
Cd	0 9	5200		Se	2 5		
Cr	1 0	13000		Si	2 6		
Cr^{+6}	1 1			Sn	2 7		
Cu	1 2	88		Sr	2 8		
Fe	1 3			Ti	2 9		
Hg	1 4			V	3 0		
Ka	1 5			Y	3 1		
Li	1 6			Zn	3 2	120000	

80 LABORATORY NAME (24) Trace Elements inc (43)

CERTIFICATION NUMBER (44) ____ (53) APPROVED BY: (54) (56) (57) (59) 8/31/78 Expires 8/31/79

LAND DISPOSAL SITE OPERATOR OR AGENT SITE ENGINEER

SIGNATURE Dennis Johnson SIGNATURE

ADM-1067 (1/77)

TRACE ELEMENTS INC.
460 SOUTH NORTHWEST HIGHWAY • PARK RIDGE, ILLINOIS • 60068 • 312 / 696-2070

February 15, 1977

LABORATORY REPORT #2752

Mr. J. Keating
Appleton Electric Company
1701 Wellington Avenue
Chicago, Illinois 60657

P.O. #53747

Samples received
Feb. 9, 1977

[TEI-6568] Cyanide Treatment Sludge

	ppm
Cyanide, ug/g	1,600
Cadmium, ug/g	5,200
Chromium, ug/g	13,000
Copper, ug/g	88
Lead, ug/g	250
Nickel, ug/g	44
Zinc, ug/g	120,000

Copy to: Mr. Dennis Johnson
John Sexton Sand & Gravel Corp.
900 Jorie Blvd.
Oak Brook, Illinois 60521

Note: Sample as received contained 73% moisture. All results above are reported on a dry weight basis.

RECEIVED

mR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

MAY 10 198

04198 MAR26

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 0 6 3 0 1 (16)

MONITOR POINT NUMBER (17) G 1 3 S (20) DATE COLLECTED (21) 0 3 2 5 8 2 (26)

Cook Co. - LPC REGION N (27)

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 10:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ 1 (41)

Sample Appearance: _____

Collector comments: _____

Collected by — LPC Div. or Company

Transported by — LPC Div. or Company

LAB USE ONLY

Lab No. C004198

Date Rec'd 3 26 82

Rec'd by J. Jeh Time 9:50 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed _____

Date forwarded MAY 7 1982

J. Dougherty

Supervisor Signature

Name Environmental Protection Agency Division of Laboratory Services

Address of Lab 2121 W. Taylor Street Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) Hg < 0.00005 (36)

(37) ___ (46)

(47) ___ (56)

(57) ___ (66)

(67) ___ (76)

Private Lab (X)

IEPA Lab (X) (X) (77)

		PARAMETERS	PPM*
27	X	Alkalinity[1]	730
31	X	Ammonia as N	0.51
37	X	Arsenic As	0.006
44	X	Barium Ba	0.0
49	X	BOD 5	15
53	X	Boron B	0.5
59	X	Cadmium Cd	0.00
64	X	Calcium Ca	500 *
69	X	COD	55
73	X	Chloride Cl	133
		LPCSM040	
27	X	Chromium Cr (tot)	0.01
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.00
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	1.2
61	X	Hardness CaCO3	2300
65	X	Iron Fe	42.3
70	X	Lead Pb	0.00
		LPCSM050	
27	X	Magnesium Mg	232 *
32	X	Manganese Mn	2.46
38	X	Mercury Hg	
46	X	Nickel Ni	0.0
52	X	Nitrate-nitrite N	0.0
56		Oil and Grease	
60	X	pH (Units)	6.5
63	X	Phenolics	0.000
70	X	Phosphorus P	0.04
76	X	Potassium K	4.0
		LPCSM060	
27	X	R.O.E. (1800°C)	3150
31	X	Selenium Se	0.000
36	X	Silver Ag	0.01
44	X	Sodium Na	112 *
49	X	SC (umhos/cm)	3213
53	X	Sulfate SO4	1600 *
58	X	Zinc Zn	0.0
63			

* Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

RECEIVED

mR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

MAY 10 198

04198 MAR26

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 3 1 0 6 3 0 1 (9)–(16)

MONITOR POINT NUMBER G 1 3 S (17)–(20) DATE COLLECTED 0 3 2 5 8 (21)–(26)

Cook Co. - LPC REGION N (27)

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 10.00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31)–(33) Depth to water ___ . ___ ft. (from T.O.C.) (34)–(36)

Sample temp. ___ ° (37)–(39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ 1 (41)

Sample Appearance: _____

Collector comments: _____

Collected by — LPC Div. or Company

Transported by — LPC Div. or Company

LAB USE ONLY

Lab No. C004198

Date Rec'd 3 26 82

Rec'd by [illegible] Time 9:50 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed _____

Date forwarded MAY 7 1982

Supervisor Signature [illegible]

Name Environmental Protection Agency
Address of Lab Division of Laboratory Services
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) Hg < 0.00005 (36)

(37) ___ (46)

(47) ___ (56)

(57) ___ (66)

(67) ___ (76)

Private Lab (X)

IEPA Lab (X) (X) (77)

LPCSM030

C.		PARAMETERS*	PPM*
27	X	Alkalinity[1]	730
31	X	Ammonia as N	0.51
37	X	Arsenic As	0.006
44	X	Barium Ba	0.0
49	X	BOD 5	15
53	X	Boron B	0.5
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	500*
69	X	COD	55
73	X	Chloride Cl	133

LPCSM040

27	X	Chromium Cr (tot)	0.01
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.00
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	1.2
61	X	Hardness $CaCO_3$	2300
65	X	Iron Fe	42.3
70	X	Lead Pb	0.00

LPCSM050

27	X	Magnesium Mg	232*
32	X	Manganese Mn	2.46
38	X	Mercury Hg	
46	X	Nickel Ni	0.0
52	X	Nitrate-nitrite N	0.0
56		Oil and Grease	
60	X	pH (Units)	6.5
63	X	Phenolics	0.000
70	X	Phosphorus P	0.04
76	X	Potassium K	4.0

LPCSM060

27	X	R.O.E. (180°C)	3150
31	X	Selenium Se	0.000
36	X	Silver Ag	0.01
44	X	Sodium Na	112*
49	X	SC (umhos/cm)	3213
53	X	Sulfate SO_4	1600*
58	X	Zinc Zn	0.0
63			

* Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

MAY 10 1982 04199 MAR26

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1) (8) SITE INVENTORY NUMBER 0 3 1 0 6 3 0 1 (9) (16)

MONITOR POINT NUMBER G 1 0 4 (17) (20). DATE COLLECTED 0 3 2 5 8 2 (21) (26)

Cook Co. - LPC REGION N (27)

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 11:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) ___ 1 (41)

Sample Appearance: ___

Collector comments: ___

Collected by ___ Div. or Company LPC

Transported by ___ Div. or Company LPC

LAB USE ONLY

Lab No. C004199

Date Rec'd 3-26-82

Rec'd by ___ Time 2:32 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded MAY 7 1982

J Daugherty

Supervisor Signature

Name Environmental Protection Agency
Address of Lab ~~Division of Laboratory Services~~
~~2121 W. Taylor Street~~
~~Chicago, Illinois 60612~~

LPCSM020
Lab Comments:

(27) BOD 5 1.5 (36)

(37) Ag <0.00005 (46)

(47) ___ (56)

(57) ___ (66)

(67) ___ (76)

Private Lab (X)

IEPA Lab (X) (77)

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	230
31	X	Ammonia as N	0.93
37	X	Arsenic As	0.000
44	X	Barium Ba	0.0
49	X	BOD -5	—
53	X	Boron B	0.9
59	X	Cadmium Cd	0.00
64	X	Calcium Ca	50.9
69	X	COD	14
73	X	Chloride Cl	31

LPCSM040

27	X	Chromium Cr (tot)	0.01
33	X	Chromium Cr+6	0.02
39	X	Copper Cu	0.05
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.5
61	X	Hardness $CaCO_3$	320
65	X	Iron Fe	0.0
70	X	Lead Pb	0.00

LPCSM050

27	X	Magnesium Mg	42.7
32	X	Manganese Mn	0.01
38	X	Mercury Hg	—
46	X	Nickel Ni	0.0
52	X	Nitrate-nitrite N	0.9
56		Oil and Grease	
60	X	pH (Units)	8.3
63	X	Phenolics	0.000
70	X	Phosphorus P	0.02
73	X	Potassium K	3.5

LPCSM060

27	X	T.D.S. (180°C)	604
31	X	Selenium Se	0.000
36	X	Silver Ag	0.0
44	X	Sodium Na	69
49	X	SC (umhos/cm)	803
53	X	Sulfate SO_4	195
58	X	Zinc Zn	0.0
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

MAY 10 1982

04200 MAR26

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 0 6 3 0 1 (16)

MONITOR POINT NUMBER (17) G 1 0 5 (20) DATE COLLECTED (21) 0 3 2 5 8 2 (26)

Cook Co. - LPC REGION (27) N

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 1 Board Order (X) (29)

Time Collected 1645 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41) 1

Sample Appearance:

Collector comments:

Collected by — Div. or Company LPC

Transported by — Div. or Company LPC

LAB USE ONLY

Lab No. C004200

Date Rec'd 5-26-82

Rec'd by Time 9:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded MAY 7 1982

Supervisor signature Daugherty

Name Environmental Protection Agency
Address of Lab ~~Division of Laboratory Services~~
2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020
Lab Comments:

(27) Ag 50.00005 (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X) (77)

IEPA Lab (X) (X)

LPCSM030

		PARAMETERS*	PPM
27	X	Alkalinity[1]	270
31	X	Ammonia as N	0.13
37	X	Arsenic As	0.000
44	X	Barium Ba	0.0
49	X	BOD 5	3
53	X	Boron B	0.4
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	135
69	X	COD	30
73	X	Chloride Cl	38

LPCSM040

27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.03
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.2
61	X	Hardness $CaCO_3$	590
65	X	Iron Fe	0.2
70	X	Lead Pb	0.00

LPCSM050

27	X	Magnesium Mg	65.7
32	X	Manganese Mn	0.06
38	X	Mercury Hg	
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	8.1
63	X	Phenolics	0.000
70	X	Phosphorus P	0.01
75	X	Potassium K	0.6

LPCSM060

27	X	T.D.S. (180°C)	784
31	X	Selenium Se	0.000
36	X	Silver Ag	0.0
44	X	Sodium Na	14.5
49	X	SC (umhos/cm)	947
53	X	Sulfate SO_4	300
58	X	Zinc Zn	0.0
63			

* Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

RECEIVED

mr

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

MAY 10 1982

04201 MAR26

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1–8) SITE INVENTORY NUMBER 03106301 (9–16)

MONITOR POINT NUMBER G108 (17–20) DATE COLLECTED 032582 (21–26)

Cook Co. - LPC REGION N (27)

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 2:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up ___ . ___ ft. (31) (33) Depth to water ___ . ___ ft. (from T.O.C.) (34) (36)

Sample temp. ___ ° (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ 1 (41)

Sample Appearance: _____

Collector comments: _____

Collected by — LPC Div. or Company

Transported by — LPC Div. or Company

LAB USE ONLY

Lab No. C004201

Date Rec'd 3-26-82

Rec'd by [illegible] Time 2:00 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved YES NO

Date completed

Date forwarded MAY 7 1982

Daugherty

Supervisor Signature

Name Environmental Protection Agency

Address of Lab ~~Division of Laboratory Services~~ 2121 W. Taylor Street Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) Hg <0.00005 (36)

(37) ___ (46)

(47) ___ (56)

(57) ___ (66)

(67) ___ (76)

Private Lab (X)

IEPA Lab (X) (X) (77)

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	200
31	X	Ammonia as N	0.19
37	X	Arsenic As	0.001
44	X	Barium Ba	0.3
49	X	BOD -5	2
53	X	Boron B	0.7
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	426 *
69	X	COD	1
73	X	Chloride Cl	18
		LPCSM040	
27	X	Chromium Cr (tot)	0.01
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.00
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.3
61	X	Hardness, $CaCO_3$	1800
65	X	Iron Fe	0.8
70	X	Lead Pb	0.0
		LPCSM050	
27	X	Magnesium Mg	184 *
32	X	Manganese Mn	0.17
38	X	Mercury Hg	
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.8
56		Oil and Grease	
60	X	pH (Units)	8.0
63	X	Phenolics	0.000
70	X	Phosphorus P	0.01
75	X	Potassium K	2.4 *
		LPCSM060	
27	X	R.O.F. (180°C)	2550
31	X	Selenium Se	0.000
36	X	Silver Ag	0.00
44	X	Sodium Na	36.0
49	X	SC (umhos/cm)	2410
53	X	Sulfate SO_4	1650 *
58	X	Zinc Zn	0.0
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

mr

MAY 10 1982

04202 MAR 26

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 03106301 (9)–(16)

MONITOR POINT NUMBER G109 (17)–(20) DATE COLLECTED 032582 (21)–(26)

Cook Co. - LPC REGION N (27)

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 300 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31)–(33) ft. Depth to water (from T.O.C.) (34)–(36) ft.

Sample temp. (37)–(39) ° Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) 1 (41)

Sample Appearance:

Collector comments:

Collected by — LPC Div. or Company

Transported by — LPC Div. or Company

LAB USE ONLY

Lab No. C004202

Date Rec'd 3-26-82

Rec'd by [illegible] Time 2:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded MAY 7 1982

J Dougherty

Supervisor Signature

Name Environmental Protection Agency

Address of Lab Division of Laboratory Services 2121 W. Taylor Street Chicago, Illinois 60612

LPCSM020

Lab Comments:

Hg < 0.00005 (27)–(36)

(37)–(46)

(47)–(56)

(57)–(66)

(67)–(76)

Private Lab (X)

IEPA Lab (X) X (77)–(78)

LPCSM030

		PARAMETERS*	PPM*
27	X	Alkalinity[1]	210
31	X	Ammonia as N	0.05
37	X	Arsenic As	0.000
44	X	Barium Ba	0.00
49	X	BOD 5	2
53	X	Boron B	0.8
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	57.5
69	X	COD	1
73	X	Chloride Cl	30

LPCSM040

27	X	Chromium Cr (tot)	0.00
33	X	Chromium Cr^{+6}	0.00
39	X	Copper Cu	0.00
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56	X	Fluoride F	0.5
61	X	Hardness $CaCO_3$	310
65	X	Iron Fe	0.0
70	X	Lead Pb	0.00

LPCSM050

27	X	Magnesium Mg	39.6
32	X	Manganese Mn	0.00
38	X	Mercury Hg	
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.6
56		Oil and Grease	
60	X	pH (Units)	8.3
63	X	Phenolics	0.000
70	X	Phosphorus P	0.06
75	X	Potassium K	3.9

LPCSM060

27	X	R.O.F. (180°C)	560
31	X	Selenium Se	0.000
36	X	Silver Ag	0.00
44	X	Sodium Na	90.3
49	X	SC (umhos/cm)	791
53	X	Sulfate SO_4	201
58	X	Zinc Zn	0.0
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5

MAY 10 1982

mR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

04203 MAR 26

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 0 3 1 0 6 3 0 1 (16)

MONITOR POINT NUMBER (17) G 1 1 0 (20) DATE COLLECTED (21) 0 3 2 5 8 2 (26)

Cook Co. - LPC REGION (27) N

Des Plains (Location) / Sexton (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 1 Board Order (X) (29)

Time Collected 8:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) . (33) ft. Depth to water (from T.O.C.) (34) . (36) ft.

Sample temp. (37) ° (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) (41) 1

Sample Appearance:

Collector comments:

Collected by — LPC Div. or Company

Transported by — LPC Div. or Company

LAB USE ONLY

Lab No. C004203

Date Rec'd 3.26.82

Rec'd by Time 2:15 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed MAY 7 1982

Date forwarded

J Daugherty

Supervisor Signature

Name Environmental Protection Agency
Division of Laboratory Services

Address of Lab 2121 W. Taylor Street
Chicago, Illinois 60612

LPCSM020 Lab Comments:

(27) Hg <0.00005 (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X)

IEPA Lab (X) (X) (77)

		PARAMETERS*	PPM*
		LPCSM030	
27	X	Alkalinity[1]	680
31	X	Ammonia as N	0.72
37	X	Arsenic As	0.000
44	X	Barium Ba	0.2
40	X	BOD 5	4
53	X	Boron B	0.8
59	X	Cadmium Cd	0.00
64	X	Calcium Ca	284*
69	X	COD	58
73	X	Chloride Cl	27
		LPCSM040	
27	X	Chromium Cr (tot)	0.01
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.00
45		Cyanide CN	
52		Fecal Coli #/100 ml	
56	X	Fluoride F	0.2
61	X	Hardness CaCO3	1200
65	X	Iron Fe	8.9
70	X	Lead Pb	0.00
		LPCSM050	
27	X	Magnesium Mg	107*
32	X	Manganese Mn	1.77
38	X	Mercury Hg	
46	X	Nickel Ni	0.0
51	X	Nitrate-nitrite N	0.0
56		Oil and Grease	
60	X	pH (Units)	7.4
63	X	Phenolics	0.000
70	X	Phosphorus P	0.04
75	X	Potassium K	2.6
		LPCSM060	
27	X	R.O.E. (180°C)	1480
31	X	Selenium Se	0.000
38	X	Silver Ag	0.0
44	X	Sodium Na	37.0
49	X	SC (umhos/cm)	1607
53	X	Sulfate SO4	540*
58	X	Zinc Zn	0.0
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL DATA FORM

Sample Type		Sample Point	
(1) Surface Water	(6) Ground Water	(1) Leachate	(1) Soil
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

LPC SWO1C (6) SITE INSPECTION NUMBER 031063 01 (8)

SITE CODE NO. C13S (17) (25) SITE COLLECTOR 92182 (21) (26)

Cook Co. - REGION N (27)

DesPlaines/Sexton / (Location) (Responsible Party)

Legal (1); Illegal (2), Indicate One 1 (28) Board Order (X) (29)

Time Collected 9:35 a.m. (30) Time to collect sample (X)

Stick-up 1.0 ft. (31) (33) Depth to water 7.4 ft. (32) (34)

Sample Item 12 (37) C (39) Preservatives (X) . . . (40)

Ground water settled by (Indicate one) (1) Bailing; (2) Pumping; (3) Other (Specify) 1 (41)

Sample Appearance:

Collector comments:

Collected by EPA Div. or Company

Reported by Div. or Company

27		Aluminum	X X X X
31	X	Arsenic as As	0.93 X X
37		Antimony Sb	. X
44		Barium Ba	. X X X
50		BOD 5	X X X X
52	X	Cadmium Cd	0.5 X X X
53	X	Chromium Cr	<0.10 X X
54		Cobalt Co	X X X
59	X	Copper Cu	13 X X X
73	X	Cyanide CN	86 X X X X

27	X	Iron Fe (total)	<0.10 X X
33		Manganese Mn	. X X
34	X	Mercury Hg	<0.10 X X
45		Molybdenum Mo	. X
52		Nickel Ni	X X X X
56		Phosphorus P	. X X X
62		Total solids TS	X X X X
65	X	Iron Fe	53.0 X X X
70		Zinc Zn	. X X

27		Potassium K	. X X X
32	X	Sodium Na	1.37 X X
35		Selenium Se	.
46		Silver Ag	. X X X
51		Bicarbonate alkalinity	. X X X
56		Total Solids	X X X X
61	X X	Total Alkalinity	. X X X
67		Total Hardness	. X
70	X	Magnesium Mg	0.74 X X
76		Potassium K	. X X X

27	X	Oil (gravimetric)	3452 X X X X
31		Phosphorus Ortho	. X
37		Nitrate NO3	. X X
44		Nitrogen Total	. X X X
49		COD (mg/l)	X X X X
53	X	Total Solids	1920.0 X X X
57		Total P	. X X X
63			

LAB COMMENTS

Lab No. [illegible]

Date Rec'd 7/21/82

Rec'd by [illegible] Time [illegible] a.m. p.m.

Sample cont. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 8/22/82

Date forwarded 8/23/82

Frank Kuroski
Supervisor Signature

Name SUBURBAN LAB. INC.
Address 4940 LITT DRIVE
of lab HILLSIDE ILL. 60162

FORMOD Lab Comments:

(20) C (36) + CRT + C (36)

(21) L E S S T H A (46)

(22) (56)

(23) (66)

(24) (76)

Sent to Lab (X) X (27)

EPA Lab (X) (28)

Analyses are to be performed on filtered samples. Values preceding no. of places given are reported in the lab comments section; data returned but not for results [illegible] in the lab comments section.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name (Private Well, Stream, Spring, Impounded Water only)

L P C S M 0 1 0 (1)–(8) SITE INVENTORY NUMBER 0 3 1 0 6 3 0 1 (9)–(16)

MONITOR POINT NUMBER G 1 1 0 (17)–(20) DATE COLLECTED 0 2 2 8 8 2 (21)–(26)

COOK Co. - LPC REGION N (27)

DES PLAINES (Location) / SEXTON (Responsible Party)

Legal (1); Illegal (2); Indicate One: 1 (28) Board Order (X) (29)

Time Collected 9:50 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 0.5 ft. (31) (33) Depth to water 19.1 ft. (from T.O.C.) (34) (36)

Sample temp 10 °C (37) (39) Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) 1 (41)

Sample Appearance:

Collector comments:

Collected by Div. or Company

Transported by Div. or Company

LAB USE ONLY

Lab No. 7831

Date Rec'd 7/11/11

Rec'd by Time 1:00 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 8/22/82

Date forwarded 8/25/82

Frank Noraldo
Supervisor Signature

Name SUBURBAN LAB. INC.
Address 1220 LITT DRIVE
of Lab HILLSIDE, ILL. 60162

LPCSM020
Lab Comments:

(27) F L A S S T H (36)

(37) (46)

(47) (56)

(57) (66)

(67) (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

		LPCSM030	PPM*
27		Alkalinity[1]	X X X X
31	X	Ammonia as N	0.34 X X
37		Arsenic As	X
44		Barium Ba	X X X
49		BOD -5	X X X X
53	X	Boron B	1.2 X X X
58		Cadmium Cd	X X
64		Calcium Ca	X X X
69	X	COD	18 X X X X
73	X	Chloride Cl	25 X X X X

		LPCSM040	
27		Chromium Cr (tot)	X X
33		Chromium Cr^{+6}	X X
39		Copper Cu	X X
45		Cyanide CN	X
52		Fecal Coli (Fiber)	X X X X
56		Fluoride F	X X X
61		Hardness $CaCO_3$	X X X X
65	X	Iron Fe	<0.1 X X X
70		Lead Pb	X X

		LPCSM050	
27		Magnesium Mg	X X X
32		Manganese Mn	X X
38		Mercury Hg	
46		Nickel Ni	X X X
51		Nitrate-nitrite N	X X X
56		Oil and Grease	X X X X
60		pH (Units)	X X X X X
63		Phenolics	X
70		Phosphorus P	X X
76		Potassium K	X X X

		LPCSM060	
27	X	B.O.D. (180°C)	17.3 8 X X X X
31		Selenium Se	X
38		Silver Ag	X X
44		Sodium Na	X X X
49		SC (umhos/cm)	X X X X
53	X	Sulfate SO_4	47.0 X X X
58		Zinc Zn	X X X
63			

Analyses are to be performed on filtered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

ESTABLISHED 1913

— CCRL INSPECTED —

ALL TELEPHONES HYDE PARK 3-1512
AREA CODE 312

INSPECTION
AND TESTING
OF MATERIALS
CHEMICAL AND
PHYSICAL TESTS

WALTER H. FLOOD & CO., INC.

ENGINEERS

6102 SOUTH BLACKSTONE AVENUE
CHICAGO 60637

REPORTS
RESEARCH
CONSULTATION
SPECIFICATIONS
INVESTIGATIONS

REPORT OF TEST

SAMPLE OF: Clay till

REPORT NO.: 7305-0066-1 DATE: November 11, 1973

TESTED FOR: John Sexton Sand & Gravel Corp.

PROJECT: Maryville Solid Waste Disposal Facility

CONTRACTOR:

QUANTITY OF MATERIAL:

SAMPLED: By Raymond J. Flood 11/9/73

REMARKS:

Sample No.	Geological Origin	Classification	Coefficient of Permeability	Ion Exchange Capacity
1	Tinley till	Clay	2.3 & 10-8 Cm/sec	6.7 me/100
2	Valparaiso till	Clay	4.7 & 10-8 cm/sec	7.2 me/100

RESPECTFULLY SUBMITTED,

WALTER H. FLOOD & CO., INC.

Form 11-5M

PAGE 1 SUMMARY (1)
REGION: [illegible]

U. S. [illegible]

[illegible]

SITE [illegible]
****

U.S. ID: *__* *__* *__* SITE NAME: [illegible]

__ *__* STATE: [illegible]

NATIONAL PRIORITY: *N CITY: [illegible]

RCRA STATUS I.D.: [illegible] COUNTY: [illegible]

HAZARD RANKING SCORE (0-100): *___.__* [illegible] (Y/N): __/__

REGIONAL NOMINATION (CHECK ONE): *_* [illegible] *_* [illegible]

[illegible] (CHECK ONE): *_* [illegible]

_ [illegible]

U.S. [illegible]
****

	[illegible]	[illegible]
[illegible]		*__/__*
[illegible]		*__/__*
[illegible]	*__/__*	*__/__*
[illegible]	*__/__*	*__/__*
[illegible]	*__/__*	*__/__*

[illegible]
****

[illegible]	*__/__*	*__/__*
[illegible]	*__/__*	*__/__*
[illegible]	*__/__*	*__/__*

MINTECH U.S.A.