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DRAFT COMPREHENSIVE SAMPLING PLAN FOR THE U.S. SCRAP SITE CHICAGO, ILLINOIS

Prepared For:

U.S. Environmental Protection Agency
Region V
536 S. Clark Street
Chicago, Illinois

CONTRACT NO. 68-95-0017

TAT-05-F-00722

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Prepared by:

WESTON-SPER
Technical Assistance Team
Region V

September 1985

1.0 INTRODUCTION

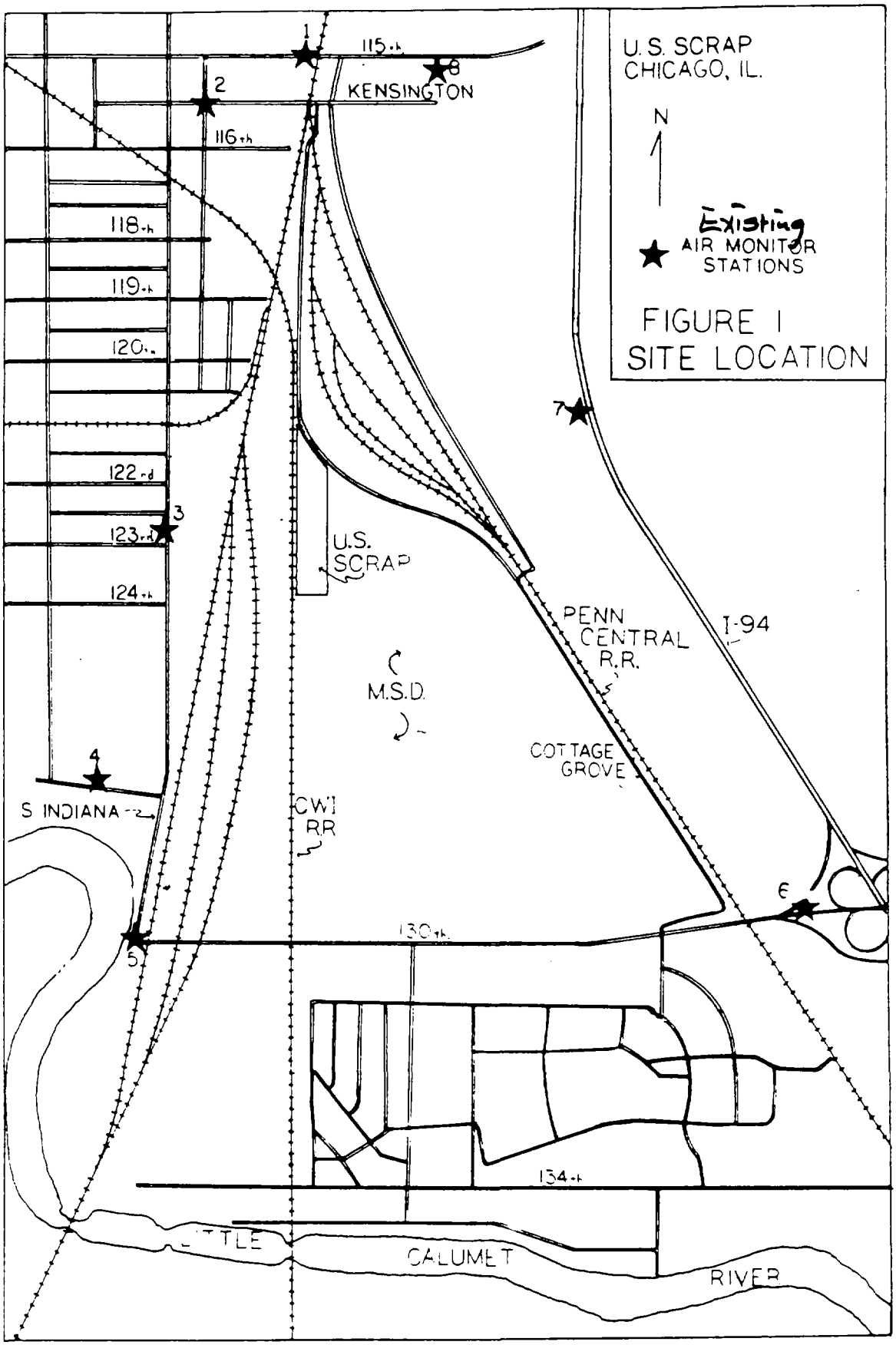
The following is an outline of actions that the Technical Assistance Team (TAT) is prepared to undertake to characterize an uncontrolled, abandoned hazardous waste landfill operated by the U.S. Scrap Corporation, (hereinafter, U.S. Scrap). The following parameters will have to be quantified in order to assess the site's impact on public health and the environment:

- Air contamination
- Surficial wastes and soil contamination
- Surface water contamination
- Subsurface wastes and vadose zone contamination
- Ground water contamination

A variety of sampling and monitoring programs are herein proposed to provide the necessary data to adequately assess this site. Additionally, cost estimates for such programs are provided. It is intended that the TAT will perform these proposed programs, utilizing Special Project funding to subcontract work which cannot be performed directly due to equipment unavailability, safety stipulations of the TAT contract, etc. Furthermore, all data collected will be reduced and interpreted by the TAT. As there are either on-going or planned legal actions against U.S. Scrap, all data collections will be copiously documented, and samples, photographs, and other potential evidence materials will be carefully collected and maintained to ensure its evidentiary integrity (e.g., proper chain-of-custody for samples, etc.). To aid in documentation of site conditions and work performed on site, the TAT has already established a 50' x 50' grid over the site. Also, duplicates of materials, such as photographs, data tabulations, and reports, will be submitted routinely to the Office of Regional Counsel.

2.0 SITE HISTORY

U.S. Scrap was an illegally operated industrial waste disposal operation located on approximately 4.5 acres of land near 119th Street and Cottage Grove Avenue on the far south side of Chicago, Illinois (Figure 1). The Cottage Grove site is bounded to the west by an embankment leading to railroad tracks, to the north by an industrial area, and to the east by property owned and operated as a sewage treatment plant by the Chicago Metropolitan Sanitary District (MSD). Residential areas are present on 115th Street to the north, along South Indiana Street to the west, and south of 130th Street to the south (Figure 1).


U.S. SCRAP
CHICAGO, IL.
N
Existing
AIR MONITOR
STATIONS
FIGURE 1
SITE LOCATION
115th
116th
118th
119th
120th
122nd
123rd
124th
130th
134th
KENSINGTON
U.S.
SCRAP
PENN
CENTRAL
R.R.
I-94
M.S.D.
COTTAGE
GROVE
CWI
RR
S INDIANA
CALUMET
RIVER
1
2
3
4
5
6
7
8

The site is reported to have been operated by Mr. Steve Martell, who also conducted disposal activities at a second, smaller site east of the U.S. Scrap site under the name of Garvey Grain. The Cottage Grove site has been alleged to have operated as a barrel reclamation facility. Wastes from reclaimable drums were emptied into pits excavated on site while other drums whose condition was such that recovery was not feasible, were buried within the same pits. In addition to this reported operation, it has been alleged that U.S. Scrap also operated under the guise of a waste incineration facility. According to a prior employee of U.S. Scrap, an incinerator, still present on site, was operated during regulatory inspections, at which time diesel fuel was burned to present a facade of a properly operating waste incinerator. Wastes sent to the site for incineration were subsequently covertly dumped on site.

While the exact dates of operation are not known, it has been reported that disposal began in the late 1960s and was completed in 1975. During its period of operation, the site was scrutinized by officers of the MSD, and the City of Chicago's Environmental Control Division and Health Department. In 1980, the site came to the attention of the Illinois Environmental Protection Agency (IEPA). Inspections at that time revealed approximately 400 55-gallon drums of waste scattered atop the site, liquid wastes within eight concrete silos located on site, scattered surficial deposits of wastes, several lagoons and/or pits of waste, and a considerable amount of sludge within on-site drainage swales. Under an agreement with the U.S. EPA, IEPA, MSD, and the City of Chicago, Mr. Martell removed the surface drums, the liquids within the silos, and roughly 10,000 gallons of sludge from the drainage swales. The Illinois Attorney General's Office (IAG) reportedly filed a suit against U.S. Scrap and Mr. Martell in 1980. However, this legal action has not resulted in responsible party corrective actions. In 1981, STS Consultants installed five monitoring wells on and around the site, under contract to the IAG. Attention has recently been drawn to the site by an underground fire which has prompted a CERCLA-funded removal action by U.S. EPA.

3.0 PERTINENT BACKGROUND INFORMATION

Despite the fact that U.S. Scrap operated in an apparently covert manner with respect to the illicit disposal of hazardous waste materials at the Cottage Grove site, a considerable amount of background information regarding the site and the operations thereupon has been collected by the U.S. EPA, the TAT, and the ERCS subcontractors. This information has been gathered via review of file materials made available by

the IEPA; U.S. EPA and Mid-America Environmental Services, Inc., interviews with IAG, MSD, and former U.S. Scrap employees; and review of historical photographs provided by the MSD and several aerial photography companies. To date, this background information has afforded a somewhat detailed picture of the prior disposal practices conducted at this site. Of particular interest has been the information concerning the types and locations of materials buried at the site. With regard to the subject proposal, the TAT will continue efforts to gather available background information and to incorporate all such information into the methodologies of assessing the site via the sampling and monitoring programs which are herein being proposed. As such, the interface of presently available information with proposed methodology will be treated within the discussions of the individual environmental parameters which this plan addresses.

As the collection of background information on the U.S. Scrap's Cottage Grove site is part of the TAT's on-going efforts to assist the On-Scene Coordinator with the current CERCLA action, no costs for this task will be associated with this proposed assessment project. The remainder of this report discusses those parameters to be studied, including a current understanding of each.

4.0 AIR CONTAMINATION

4.1 Current Status

No historical air quality data is known to exist for this site. It has been determined, however, that large amounts of solvents and other volatile materials were buried at the site. Some of the surficially deposited wastes are now known to be of a volatile nature. Additionally, the presence of surface wastes presents the potential of contaminated dust generation. As such, it is quite likely that significant off-site releases of air contaminants may be occurring. Heat from the underground fire serves to heighten this possibility as it forces volatile vapor to the surface of the fill. Recent surveys have documented the presence of air contaminants on site; however, a significant off-site release has not been documented. Recent discussions between the TAT and personnel from U.S. EPA Remedial Response Branch and the Mitre Corporation have indicated that, due to the lack of documented useage by the surrounding population of the ground and surface waters most likely to be affected by the site, a documented off-site release of air contaminants is the only foreseeable route of raising the site's Hazard Ranking Score for subsequent placement on the National Priorities List. As such, the TAT proposes a sampling program designed to document any such significant off-site release that may be occurring.

Air monitoring initiated by the ERCS subcontractor and the TAT on the evening of the initial response to the underground fire has provided some limited data. Draeger tube samples, monotox, and other monitoring instrument data were collected from the venting smoke of the fire. The results indicated the presence of a variety of organic and inorganic constituents. In addition, eight air monitoring locations were designated in the industrial and residential areas around the landfill (Figure 1). Periodic measurements at these stations have been taken since the evening of August 16, 1985, and have revealed no indication of fire generated contaminants reaching the nearby populated areas at detectable levels.

As requested by the OSC, the TAT has conducted an initial monitoring survey of the site using a Foxboro Organic Vapor Analyzer (OVA). During this survey, random points were chosen and staked. A set of three total organic vapor readings were recorded at each station: one at waist height, one a few inches above the ground, and another above-ground reading after disturbing the first inch or so of the soil or waste present at the point. The points were chosen with the intent to document worst-case conditions (i.e., spots bare of vegetation or with exposed waste materials were actively sought). This survey has tentatively documented the presence of volatile wastes on or near the surface of the site and the emission of organic vapors from certain areas of the landfill. Results of this survey are provided in Attachment C.

4.2 OVA Survey

To augment the initial OVA survey performed by the TAT, a similar survey is proposed in order to document conditions on a nonrandom basis throughout the site. To accomplish this, readings of a similar nature to the initial survey will be taken at each of the grid points which have been established over the site. This may provide information which will be useful in placement of air sampling equipment (refer to Section 4.3). During this survey, a detailed inventory of surface conditions will be made to document the presence of surface wastes, seeps, etc.

4.3 Air Sampling

As has been indicated, there exists a definite need to document any significant off-site release of air contaminants which may be occurring. To provide such documentation, an air sampling program, based upon the suggestions of the U.S. EPA and Mitre Corporation personnel, has been developed. Due to the potential interference of emissions from the scrap

yard to the north and the MSD sludge lagoons to the east, a sampling period will be chosen wherein westerly winds are anticipated. Eight sampling stations will be employed: two on the west side of the field due west of the site, to provide an upgradient background level; two more stations along the west fence line of the site; and, four stations along the east fence line. The west fence stations are intended to detect any interferring emissions from the potentially contaminated marshy field due west of the site. A high volume air sampler (hi-vol) and a charcoal tube sampler will be positioned between three and six feet above ground at each station. The hi-vol will be operated for a 24-hour sampling period. The charcoal tube samplers, utilizing Gillian air pumps, will be operated for an eight hour period. A portable weather station will be positioned on site to document meterological conditions during the sample period. Exact location of the stations will be determined prior to the collection period; the locations of the four downwind stations on the east fence, in particular, will be dependent upon the results of the final OVA survey and of a soil gas survey presently being conducted Section 4.2). These stations will be positioned downwind of the most likely areas of emissions. For instance, one station may be located downwind of an active leachate seep which has been identified in the northeast portion fo the site. Also, a spot check of potential emissions from the north burn area with the OVA, if the area is still hot (based upon infrared photos and/or temperature probes) may yield an additional point for downwind sample stations. Due to the possibility of vandalism, a security guard will be necessary to protect the sample equipment, particularly at the four western stations. The hi-vol samples obtained from this effort will be analyzed for inorganic constituents and the charcoal tubes will be analyzed for volatile organic compounds.

5.0 SURFACE WASTES, SOIL, AND WATER CONTAMINATION

5.1 Current Site Status

Visual inspections of the site have revealed a variety of surface deposited wastes and seepage materials as well as areas of apparent vegetation stress. Little is currently known about the types and quantities of contaminants present on the site. During the summer of 1980, the IEPA collected samples of sludge found in a drainage swale along the eastern perimeter of the site. Subsequent analyses identified low levels of cyanide, chromium, lead, and nickel. Since that time, Mr. Martell had approximately 10,000 gallons of sludge removed from the ditch; however, a thick, black material

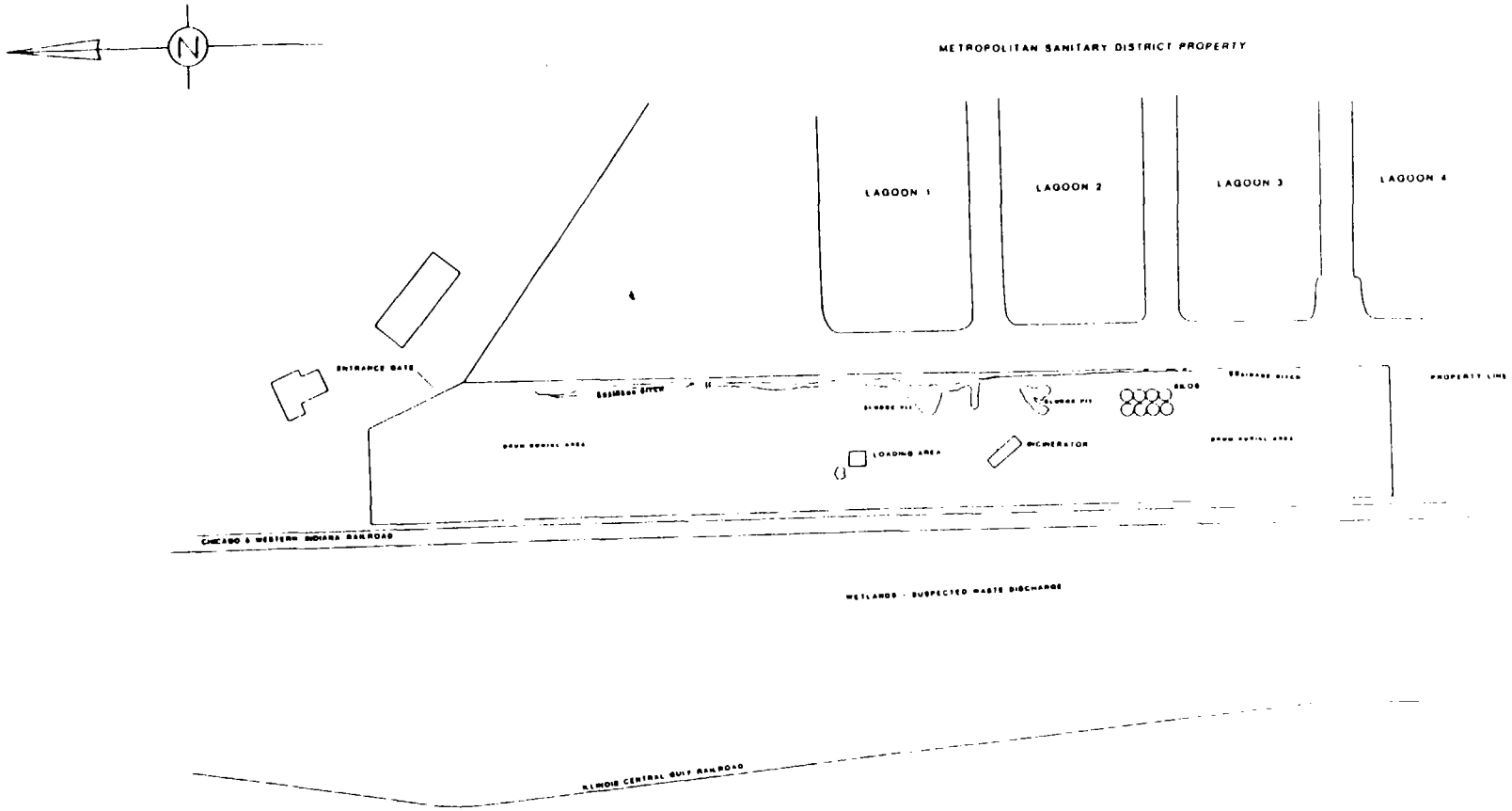
still exists in portions of the swale and on MSD property where the materials have apparently migrated/seeped off site.

Since the time of the initial emergency response on August 16, 1985, the TAT has conducted an OVA survey documenting the volatile nature of several surface waste deposits and seeps as well as from the sludge presently pooled in the drainage swale. Results of flash point analyses of these materials yielded flash points ranging from 164 to >210°F. Discussions with prior site employees also indicated that liquid wastes were routinely dumped in the field west of the site beyond the railroad embankment (Figure 2).

On August 17, 1985, the TAT collected one subsurface sample from a test pit dug near the northern underground fire (S01), a composite soil sample from the vents in the southern fire area (S02), and a sludge sample from the eastern drainage swale (S03) (Attachment A). Based on the limited background information available, the need for a detailed sampling program is apparent. The sampling plan outlined below will cover both on-site and off-site soil sampling and will document direct contact threats posed by the site, as well as aid in determining the spread of contaminants via surface runoff, spills, or deliberate discharging activities.

5.2 Sampling of On-Site Surface Wastes and Soils

As previously indicated, the TAT has developed a 50' x 50' sampling grid covering the entire U.S. Scrap site. A statistically-based, systematic random sampling of the area will be performed in two phases. The first phase of sampling will consist of collecting soil samples from the first 12 inches of material below grade at the center point within the northwestern quarter of each 50' x 50' square. Every five samples will be composited yielding a total of 30 soil samples. The samples will then be analyzed for priority pollutants and the results subject to statistical analysis. The statistical analysis will determine the confidence level of the results, the inherent level of error, and the number of samples necessary to increase the data confidence to 98% for improved legal documentation. The results will also be plotted areally to determine zones which may require closer sampling scrutiny. A subset of 10 samples will also be analyzed for polychlorinated dibenzo p-dioxins and furans as background information suggests a potential for such contamination.



NO	DATE	APPD	REVISION	NO	DATE	APPD	REVISION

FIGURE 2
SITE MAP
U.S. SCRAP LANDFILL

ROY F. WESTON, INC.
ENVIRONMENTAL SCIENTISTS AND ENGINEERS

Based on the results of the statistical data analysis and the areal distribution of contaminants, phase two of the sampling program will be initiated. The number of samples taken during this phase of the study is not possible to estimate at this time as this is strictly a function of data variance determined during phase one of sampling. An attempt to limit the number of samples required in this phase will be made by keying into areas of major concern as dictated by the areal distribution of contaminants. Analytical costs may also be reduced by analyzing the samples for specific chemical parameters as defined in phase one of the study.

Sampling of surface wastes (pools, seeps, etc.) will be performed separately from the statistical soil sampling and will be largely judgmental. Samples will be collected from all pools, ponds, exposed wastes, and a number of scattered exposed drums. The samples will be analyzed for priority pollutants which will further help define the kinds of possible wastes accepted during site operations and shed light on the potential characteristics of wastes buried on-site. As part of the judgmental sampling, samples will be taken along all major surface run-off paths located on site, specifically, the previously-mentioned drainage swales along the southern and eastern periphery of the site. These will include both sediment and water samples where possible. The sampling program will extend off site as drainage paths are identified to determine if contaminants are migrating off site via surface run-off.

5.3 Sampling of Off-Site Surface Wastes and Soils

As indicated by discussions with prior U.S. Scrap employees, liquid wastes were routinely discharged into the field west of the site, beyond the railroad embankment. Presently, the area shows possible vegetation stress and merits closer scrutiny. Two north-south sampling transects will be established in this area. Samples will be collected every 100 feet, every 3 samples being composited yielding approximately 10 samples. If this sampling is performed after phase one of the comprehensive soil sampling previously described, specific analytical parameters may be chosen to help limit analytical costs of the study.

6.0 SUBSURFACE WASTE AND VADOSE ZONE CONTAMINATION

6.1 Current Status

In an attempt to ascertain the subsurface conditions at the U.S. Scrap site, a number of avenues have been investigated by the OSC, the TAT, and the ERCS subcontractor. Interviews with prior employees of the facility have yielded considerable detail regarding past operations at the site,

particularly the approximate locations of burial activities. Specifically, one prior employee has claimed that drums were deposited in pits, possibly up to 40 feet in depth, located just to the northeast and northwest of the northern-most underground fire, and west of, and under, the southern underground fire. Bulk liquid dumping is alleged to have occurred in the portion of the site where the north fire is located, extending south to the old loading dock. Bulk liquids were also deposited in the vicinity of the southern fire as well. Empty drums with residual materials were buried north of the loading dock after dumping their contents into a pit located nearby. Finally, it was reported that a number of drums, some of which may be air-reactive and/or shock-sensitive, and others containing highly toxic pesticides, were buried along the length of the railroad embankment from the north end of the site to the area across from the silos.

Information on subsurface conditions has also been obtained from the work conducted by STS Consultants for the IAG. Five monitoring wells were constructed by STS. Boring samples were collected by STS and IEPA personnel. Analyses of these samples for select organic parameters revealed considerable levels of contamination, particularly toluene, xylenes, benzenes, and other aromatic and aliphatic hydrocarbons (Attachment B). A number of shallow test pits, four to six feet in depth, were also dug by STS. Samples from these pits also revealed high levels of similar contaminants (Attachment B). The TAT is currently attempting to obtain documentation that will identify the exact locations of these borings and test pits.

On August 17, 1985, while excavating test pits and applying clay caps during the initial emergency response to the reported landfill fire, the TAT collected a subsurface soil sample. Analysis disclosed high levels of contamination by a variety of organic and inorganic parameters (Attachment A).

Numerous historical photographs of the site are available and have been reviewed. Recently the TAT has located additional historical aerial photos of the site, and is in the process of procurring prints and enlargements of these photos. Also, it has been learned that other historical information is available from the Chicago Fire Department files. Files maintained by the IEPA and the MSD have already been reviewed. Upon procurement of all available historical information on the site, a detailed review will be conducted in order to better document the locations of burial activities on the site. In addition to the historical information regarding

the site, two recent surveys have been conducted in an attempt to better define subsurface conditions. A geophysical survey utilizing a flux-gate magnetometer and an EM 31 has been conducted by the TAT and Roy F. Weston, Inc., over the east side of the railroad embankment, bordering the west side of the site. Despite a considerable amount of interference, several potential hot spots, indicating buried metal, were revealed. Furthermore, visual evidence of possible drum burial along the embankment north of the U.S. Scrap property has been reported. A soil gas sampling program is also currently being conducted by personnel from the U.S. EPA. Environmental Response Team (ERT). Data from this program is pending.

The TAT is proposing two additional sampling programs in order to document the types of material which have been buried at the U.S. Scrap site. Prior to the initiation of either program, a thorough review of all historical and current data, as well as the data pending from the soil gas sampling, will be required, in order to maximize the efficiency of the sample locations.

6.2 Subsurface Borings

A number of soil borings are proposed in areas of the site where it appears likely that bulk liquids were deposited below grade (i.e., into pits). Currently, it would appear that borings would be placed in the area of the southern fire (south of the silos) and the area near the northern fire. A hollow stem auger will be utilized to perform each boring. If this proves impractical due to buried debris, a solid stem auger will be necessary. Split spoon samples will be collected at five foot intervals during drilling. As it has been reported that pits up to 40 feet in depth were excavated on the site, it will be assumed that all borings will be completed to a 40 foot depth below grade. Judging from accounts of the sampling performed in the test excavations constructed by STS, a considerable amount of liquid waste can be anticipated to seep into the bore hole. As such, immediately upon completion of each boring, a bailer will be inserted through the hollow stem auger in order to collect a sample of any liquid material which may have collected within the bore hole.

All samples collected from the borings will be analyzed for full priority pollutant parameters. The exact location of the borings will await final review of outstanding data, as previously discussed. Tentatively, four borings will be constructed; however, this number may change upon final data review. Also, it should be noted that if on-site wells are constructed, an attempt will be made to place them within the borings proposed in this section to minimize costs. Any

borings which do not realize well construction will be excavated with a temporary well point and upon stabilization, static water levels recorded and a ground water sample procurred prior to bore hole closure. Closure is recommended due to the highly volatile nature of the wastes which may be present.

6.3 Test Pits and Drum/Liquid Sample Extraction

A number of small excavations are proposed in areas deemed most likely to harbor buried drums in order to collect waste samples from actual buried containers. Tentatively, this will include the entire railroad embankment, and the four aforementioned pits alleged to have received drums. A number of small "windows" will be excavated; these will be of a minimal size necessary to adequately expose drums for sampling. Excavation will be performed with a caterpillar 225 trackhoe with claw-type bucket or a machine of similar capabilities, equipped with enclosed cab, bottled air for Level B protection for the operator, and an explosion shield. A drum grappler will be utilized to pull exposed drums to a prepared, clay based and visqueen-lined staging area. A remote, nonsparking drum punch will then be utilized to enter the exhumed and staged drums for sampling. Spotters positioned at remote locations and equipped with binoculars will aid the equipment operator during all stages of excavation. All on-site personnel will be equipped with portable radios and will remain in contact with personnel at the off-site command post. Supplies of dry fire extinguishing chemicals, lime and clay will be maintained as contingency materials. In addition to samples from exhumed drums, soils and any seepage materials which collect in the pits will also be sampled. Entry into any pit for sampling or documentation purposes (i.e., photography) will require Level A protection. Upon completion of the excavation and sampling of each pit, exhumed and sampled drums will be overpacked, and staged to await disposal. The excavation would then be backfilled and capped with clay.

For the purposes of cost estimations, four pits in the landfill and five pits in the rail embankment will be excavated, with five drum samples, and two soil/seepage samples collected from each pit. Again, all samples collected will be analyzed for full priority pollutant parameters.

7.0 GROUNDWATER CONTAMINATION

7.1 Background Information

As per the request of the Illinois State's Attorney General's Office, STS Consultants, Ltd., of Northbrook, Illinois, performed a detailed geologic/hydrogeologic study of the U.S.

Scrap site during the summer of 1981. A total of eight soil borings were drilled and five monitoring wells installed on U.S. Scrap property. Four of the wells were shallow, ranging from 15 to 17 feet in depth and the fifth well extended to bedrock approximately 65 feet below the surface.

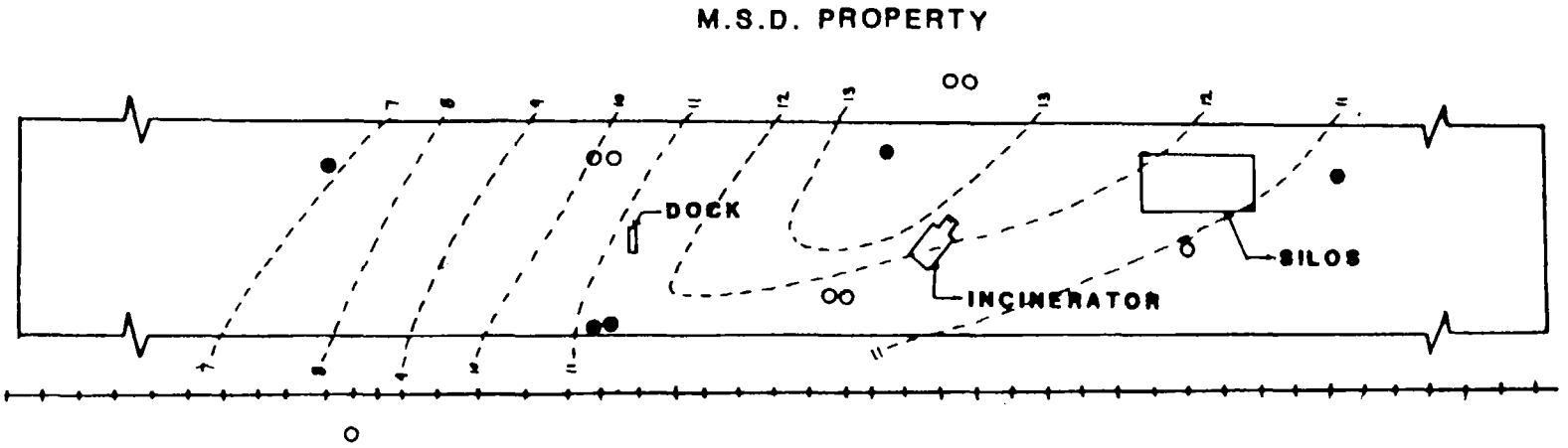
Records of soil borings and other background information indicates that the U.S. Scrap site rests atop glacially derived lake bottom deposits which, in turn, overlie the Niagran Dolomite, a regional carbonate bedrock aquifer of Sliurian age. In this particular area, the lake bottom deposits are characterized as silts and clays with low vertical permeabilities (on the order of 10^{-8} cm/sec). The clays are overlain by up to 15 feet of fill materials including sand, gravel, slag, and various other debris.

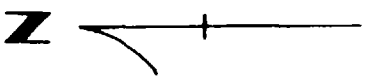
Water level measurements in the monitoring wells were taken by both STS and the IEPA. Results indicate that the phreatic surface defined by the shallow wells is approximately 25 feet higher than the piezometric surface of the top of the Niagran dolomite. This head differential suggests that any vertical migration through the clay deposits will be in a downward direction. The water level measurements in the shallow monitoring wells further suggest a groundwater mound located more or less centrally along the eastern periphery of the site; groundwater appears to flow radially downward, away from the mound (Figure 3).

Groundwater sample analyses show all samples exceeding ground water limits established by the Illinois Pollution Control Board for ammonia, BOD-5, boron, manganese, phosphorus, R.O.E. (residue on evaporation) and sulfate. Similarly, all samples contained elevated levels of xylenes, toluene, several other organic compounds, and PCBs. Analyses also document contamination in the underlying dolomite aquifer (Attachment B).

7.2 Proposed Groundwater Monitoring

In order to adequately determine the impact of the U.S. Scrap site on the ground water system, a series of monitoring wells must be installed which will allow the monitoring of flow directions in both the unconfined surface aquifer and the confined carbonate bedrock aquifer. The monitoring will include a scheduled ground water sampling program with at least the initial few samples being analyzed for priority pollutants. Prior to collecting any sample, at least three casing volumes of water will be purged from the well to assure representative ground water samples. All samples will be collected using a stainless steel bailer appropriately decontaminated between each sampling. Particular attention will be





.65" = 100'

LEGEND

● STS WELLS

○ TAT WELLS

- - - - - GROUND WATER CONTOUR LINES

(COMPILED BY S.T.S. LTD., 1981).

FIGURE 3

GROUND WATER CONTOUR MAP

ROY F. WESTON, INC.
ENVIRONMENTAL CONSULTANTS-DESIGNERS

DRAWN R. Gnat	DATE 9/6/85	DES. ENG	DATE	W.O NO.
CHECKED		APPROVED		DWG. NO.

paid to the levels and extent of contamination in the surface aquifer as well as the rate of break-through of contaminants through the clay aquiclude, into the underlying dolomite. In an attempt to determine the quantities of contaminants migrating through the clay aquiclude, a series of Shelby tube samples will be taken during drilling activities. Samples will be analyzed for both physical and chemical parameter to establish migration rates and any possible chemical gradients.

A minimum number of eight wells will be required to establish an effective monitoring system as described above. Of the eight wells, there will be three well clusters of two wells per cluster. Within each cluster one well will be screened within the surficial unconfined aquifer, and the other will extend into the upper ten feet of the deeper confined aquifer. Two additional shallow wells will be placed in strategic locations around the landfill.

Exact well locations will be decided upon in the field; however, an approximate siting is illustrated in Figure 3. The upgradient well cluster on MSD property will, hopefully, yield good background samples; the other wells placed in locations amenable to subsequent triangulation methods to determine flow directions and gradients which will be used for the establishment of groundwater contour maps and flow nets.

The actual number of monitoring wells to be installed is largely a function of the integrity of the five wells emplaced by the STS Consultants, Ltd., in 1981. Any of the wells that have not been destroyed and are of sound structural integrity will be incorporated into the planned monitoring system, thereby reducing the number of wells to be drilled.

All wells will be drilled using appropriate rotary-type drilling methods. Wells will be constructed of two inch I.D. galvanized steel casing due to the anticipated high concentrations of solvents present on site. The saturated zone will be screened 15 feet in the upper-most aquifer and 10 feet in the underlying carbonate aquifer. All well construction practices will be monitored by the TAT to ensure proper QA/QC procedures are followed.

8.0 COST ESTIMATES

The following is an itemized estimation of costs to complete the sampling and monitoring programs presented within this plan. Estimates for TAT personnel are based upon the rate utilized for on-going cost estimates used by the OSCs during removal actions. This rate includes travel and per diem,

and, since the time estimation for TAT personnel includes off-site work, such as subcontractor arrangements, data interpretation, etc., these estimates are inflated. Rates for subcontract work to be performed by a cleanup contractor were based upon ERCS rates currently in use. Other subcontract rates, such as for soil borings and well construction, were based on actual costs incurred from other projects. A deliberate effort was made to provide a maximum cost estimate based upon "worst case" situations, e.g., using maximum potential depths of borings, maximum number of monitoring wells, maximum use of contractor provided equipment, etc., it is anticipated that actual costs realized for each program will be considerably less.

Estimates of analytical costs were handled separately. The U.S. EPA has arranged for the ERT mobile lab to be brought to the site, and they will be utilized for all analytical services except for the hi-vol and charcoal tube samples.

8.1 Air Contamination

8.1.1 OVA Survey and Visual Inventory

Personnel

Item	Unit Rate	Days	Amount
2 TAT members	$480/day/ea	2	$1,920.00

Equipment

Item	Unit Rate	Days	Amount
Foxboro OVA	EPA equipment no cost		-0-
2 Level C-TAT	$35/day/ea	1	$ 70.00

8.1.2 Air Sampling

Personnel

Item	Unit Rate	Days	Amount
2 TAT members	$480/day/ea	4	$3,840.00
1 Air monitor specialist (contractor	$320/day	1	320.00

8.1.2 Air Sampling (Continued)

Equipment

Item	Unit Rate	Days	Amount
8 Hi-vol air samples	$35/day	2	$ 560.00
4 5-kw generators	$66/day	2	530.00
8 Gillian air pumps and charcoal tubes	$30/day	1	240.00
2 Level C-TAT	$35/day	2	140.00
		Section 8.1 Subtotal	$7,620.00

8.2 Surface Wastes, Soil and Water Contamination

8.2.1 On-Site Soil and Waste Sampling

Personnel

Item	Unit Rate	Days	Amount
3 TAT members	$480/day/ea	10	$14,400.00

Equipment

Item	Unit Rate	Days	Amount
Sampling equipment	EPA equipment no cost		-0-
3 Level B TAT	$65/day/ea	5	$ 975.00

8.2.2 On/Off-Site Soil/Waste Sampling

Personnel

Item	Unit Rate	Days	Amount
3 TAT members	$480/day/ea	5	$7,200.00

Equipment

Item	Unit Rate	Days	Amount
Sample equipment and materials	EPA equipment No costs		-0-
2 Level C TAT	$35/day/ea	1	$ 70.00

8.2.2 On/Off-Site Soil/Waste Sampling (Continued)

Equipment

Item	Unit Rate	Days	Amount
3 Level B TAT	$65/day/ea	1	$ 195.00
1 Transect	$90/week	1 week	90.00
Decontamination materials	(included in 8.2.1)		-0-
		Section 8.2 Subtotal	$22,930.00

8.3 Subsurface Wastes and Vadose Zone Contamination

8.3.1 Soil Borings

Personnel

Item	Unit Rate	Days	Amount
2 TAT members	$480/day/ea	12	$11,520.00

Equipment and Materials

Item	Unit Rate	Days	Amount
2 Level B-TAT	$65/day/ea	7	$ 910.00

Boring and Samling Costs

Six borings-40 feet deep	$20/ft	-	4,800.00
Mobilization/demobilization of rig to/from/and on site	-		2,030.00
Split spoon samples at 5' intervals	$15/sample	-	720.00
Stand-by charges	-		550.00
Level B drilling charges	-	-	2,415.00
Boring Closure per Illinois Code	$80/hole	-	480.00

8.3.2 Test Pits

Personnel

Item	Unit Rate	Days	Amount
2 TAT members	$480/day/ea	20	$19,200.00
1 Foreman-operator, Level 3	$295/day	15	4,425.00
1 Operator, Level 3	$250/day	15	3,750.00
3 Cleanup technicians, Level 3	$210/day/ea	15	3,150.00
1 Chemist	$320/day	15	4,800.00

Equipment and Materials

Item	Unit Rate	Days	Amount
225 Trackhoe	$478/day	15	$7,170.00
Trackhoe mobilization/demobilization	-	-	380.00
955 Dozer	$385/day	15	5,775.00
Dozer mobilization/demobilization	-	-	310.00
Heavey equipment safety package (2)	$84/day	15	2,520.00
4 Level B-contractor	$160/day/ea	15	9,600.00
4 Level A-contracor	$250/day/ea	15	15,000.00
2 Level B-TAT	$65/day/ea	15	1,950.00
Sampling equipment	EPA equipment no cost	-	-0-
Decontamination materials	-	-	40.00
Cascade system	$53/day	15	795.00
Drum punch	$53/day	15	795.00

8.3.2 Test Pits

Equipment and Materials

Item	Unit Rate	Days	Amount
Vehicle	$58/day	15	$ 870.00
Drum grappler lead	$157/day	15	2,205.00
Claw bucket	$147/day	15	2,205.00
Overpacks (30)	$100/drum	-	3,000.00
Monitoring instruments	EPA equipment no cost		-0-
Clay-60 yards	$6/yard	-	360.00
Line-20 yards	$15/yard	-	300.00
Dry fire extinguishing chemical	-	-	1,000.00
		Section 8.3 Subtotal	$113,025.00

8.4 Ground Water Contamination

8.4.1 Drilling, Installation and Sampling of Eight Monitoring Wells

Personnel

Item	Unit Rate	Days	Amount
2 TAT members	$480/day/ea	11	$10,560.00

Equipment and Materials

Item	Unit Rate	Days	Amount
2 Level B-TAT	$65/day/ea	10	1,300.00

Drilling and Installation Charges

Item	Unit Rate	Days	Amount
Mobilization/ demobilization	Flat rates	-	$3,310.00

8.4 Ground Water Monitoring (Continued)

8.4.1 Drilling, Installation and Sampling of Eight Monitoring Wells

Drilling and Installation Charges (Continued)

Item	Unit Rate	Time	Amount
Drilling charges per sliding scale			
0'-20'	$12/Lf - 110		
20'-40'	$13/Lf - 60'		
40'-80'	$16/Lf - 105'		$3,780.00
Casing and Well Construction/installation			
Galvanized casing			
0'-20'	$2.50/ft		
20'-40'	$2.75/ft		
40'-80'	$3.25/ft		684.00
Galvanized well screen, 105'	$15.00/ft		1,575.00
Shelby tube sampling 9 samples	$30/ea		270.00
Physical analysis 9 samples	$80/ea		780.00
Protective riser pipes, 8 risers	$110/ea		880.00
Decontamination of equipment	$130/hr	9	1,170.00
Stand-by charges	$130/hr	15	1,950.00
Level B drilling charge	1.5 x drill fees		2,200.00
Well development by the TAT			-0-
		Section 8.4 Subtotal	$28,459.00

8.5 Analytical Costs - Special Projects

Item	Amount
8 Charcoal tube samples for volatile organics analyses	$4,000.00
8 Hi-vol samples for nonvolatile organic and inorganic analyses	4,000.00
Section 8.5 Subtotal	$8,000.00

8.6 TAT/Special Contract Costs

Item	Amount
Air Contamination (8.1)	$7,620.00
Surface Wastes, Soil and Water Contamination (8.2)	22,930.00
Subsurface Wastes and Vadose Zone Contamination (8.3)	113,025.00
Ground Water Contamination	28,459.00
Analytical - Special Project	8,000.00
Subtotal	$180,000.00
15% Contingency	27,000.00
Total	$207,000.00

8.7 Analytical Costs - ERT Mobile Lab

Item	Priority Pollutants	Dioxin, etc.
Surface wastes (on site)	65	10
Surface soils (off site)	10	
Subsurface wastes (borings)	54	
Subsurface wastes (pits)	63	
Ground water (waters)	8	
Ground water (clays)	9	
	209	10

Priority Pollutant Analytical Costs

Assuming lab runs 10 samples/day, will need lab for approximately 21 days.

Estimated cost for ERT lab approximately $2,000.00/day
Total estimated cost approximately $42,000.00

Dioxin Analyses

Assuming samples will be sent out for analyses @ $800/ea
Total estimated cost approximately $8,000.00

Total Analytical Costs

Item	Amount
Priority Pollutants	$42,000.00
Dioxin, etc.	8,000.00
Subtotal	$50,000.00
15% Contingency	7,500.00
Total	$57,500.00
	or say
	$60,000.00

ATTACHMENT A

TAT AND MID-AMERICA ANALYTICAL
DATA FOR SAMPLES COLLECTED ON 8/17/85

GULF COAST LABORATORIES, INC.
2417 Bond St., Park Forest South, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

Sept. 5, 1985

Mr. Phil Newton
Mid America Environmental Services
13840 South Halsted
Riverdale, Il 60627

Dear Mr. Newton:

Please find enclosed analytical reports for three (3) soil samples submitted to our laboratory on August 17, 1985.

If you have any questions, please contact our laboratories.

Sincerely,

GULF COAST LABORATORIES, INC.

Donald Gipple

Donald Gipple

DG/kl

Enclosures

S01 - subsurface Soil from Test Pit at North Fire

S02 - Composite Surface Soil from Vents at South Fire

S03 - Sludge from East Side Ditch

9/6/85 - TAT

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-01 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68952

PARAMETERS	RESULTS	
Antimony	< 40	mg/kg
Arsenic	7.1	mg/kg
Beryllium	2.8	mg/kg
Cadmium	10	mg/kg
Chromium	220	mg/kg
Copper	160	mg/kg
Lead	1200	mg/kg
Mercury	2.9	mg/kg
Nickel	77	mg/kg
Total PCB's	77	mg/kg
Aroclor 1248	49	mg/kg
Aroclor 1260	28	mgkg
Selenium	< 0.2	mg/kg
Silver	8.3	mg/kg
Thallium	< 25	mg/kg
Zinc	790	mg/kg

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-01 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68952

VOLATILE ORGANICS	RESULTS
CHLOROMETHANE	< 100 mg/kg
VINYL CHLORIDE	< 100 mg/kg
CHLOROETHANE	< 100 mg/kg
BROMOMETHANE	< 100 mg/kg
ACROLEIN	< 100 mg/kg
ACRYLONITRILE	< 100 mg/kg
METHYLENE CHLORIDE	< 100 mg/kg
T CHLOROFLUOROMETHANE	< 100 mg/kg
1,1-DICHLOROETHYLENE	< 100 mg/kg
1,1-DICHLOROETHANE	< 100 mg/kg
TRANS-1,2-DICHLOROETHYLENE	< 100 mg/kg
CHLOROFORM	< 100 mg/kg
2-DICHLOROETHANE	< 100 mg/kg
,1-TRICHLOROETHANE	< 100 mg/kg
ON TETRACHLORIDE	< 100 mg/kg
DICHLOROMETHANE	< 100 mg/kg
ICHLOROPROPANE	< 100 mg/kg

BDL = BELOW DETECTION LIMIT

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-753

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-01 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68952

VOLATILE ORGANICS	RESULTS
TRANS-1,3-DICHLOROPROPENE	< 100 mg/kg
TRICHLOROETHYLENE	< 100 mg/kg
BENZENE	< 100 mg/kg
CIS-1,3-DICHLOROPROPENE	< 100 mg/kg
1,1,2-TRICHLOROETHANE	< 100 mg/kg
DIBROMOCHLOROMETHANE	< 100 mg/kg
BROMOFORM	< 100 mg/kg
1,1,2,2-TETRACHLOROETHYLENE	165 mg/kg
1,2,2-TETRACHLOROETHANE	< 100 mg/kg
TOLUENE	930 mg/kg
CHLOROBENZENE	< 100 mg/kg
ETHYLBENZENE	< 100 mg/kg
2-CHLOROETHYL VINYL ETHER	< 100 mg/kg
DICHLORODIFLUOROMETHANE	< 100 mg/kg
BIS(CHLOROMETHYL)ETHER	< 100 mg/kg
XYLENE	3000 mg/kg

BDL = BELOW DETECTION LIMIT

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-01 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68952

E-NEUTRAL TRACTABLE ORGANICS	RESULTS	
1,4-DICHLOROBENZENE	< 6.4	mg/kg
BIS (2-CHLOROISOPROPYL) ETHER	< 6	mg/kg
BIS (2-CHLOROETHYL) ETHER	< 6.1	mg/kg
NITROBENZENE	< 6.2	mg/kg
ACENAPHTHYLENE	< 2.1	mg/kg
2,6-DINITROTOLUENE	<13	mg/kg
4-BROMOPHENYLPHENYL ETHER	< 6.6	mg/kg
ETHYL PHTHALATE	< 2.6	mg/kg
DI-N-BUTYL PHTHALATE	49	mg/kg
3,3-DICHLOROBENZIDINE	< 8.1	mg/kg
BENZO (B) FLUORANTHENE	< 4	mg/kg
BIS (2-ETHYLHEXYL) PHTHALATE	114	mg/kg
1,3-DICHLOROBENZENE	< 7.8	mg/kg
1,2-DICHLOROBENZENE	< 7.9	mg/kg
HEXACHLOROBUTADIENE	< 9.6	mg/kg
NAPHTHALENE	278	mg/kg
IS (2-CHLOROETHOXY) METHANE	< 5.6	mg/kg
ACENAPHTNENE	8.2	mg/kg

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ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-01 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68952

BASE-NEUTRAL EXTRACTABLE ORGANICS	RESULTS	
FLUORENE	14	mg/kg
2,4-DINITROTOLUENE	< 9.2	mg/kg
HEXACHLOROBENZENE	< 3.9	mg/kg
ANTHRACENE	< 2	mg/kg
DIETHYL PHTHALATE	< 2.6	mg/kg
PYRENE	45	mg/kg
CHRYSENE	< 3	mg/kg
BENZO (A) ANTHRACENE	< 2.8	mg/kg
DIBENZO (A,H) ANTHRACENE	< 5.5	mg/kg
HEXACHLOROETHANE	<17	mg/kg
N-NITROSODI-N-PROPYLAMINE	<43	mg/kg
1,2,4-TRICHLOROBENZENE	< 8.1	mg/kg
HEXACHLOROCYCLOPENTADIENE	<10	mg/kg
2-CHLORONAPHTHALENE	< 4	mg/kg
ISOPHORONE	336	mgkg
AZOBENZENE	< 2.3	mg/kg
-NITROSODIPHENYLAMINE	< 8.7	mg/kg
PHENANTHRENE	102	mg/kg

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ANALYTICAL REPORT

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13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-01 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68952

BE-NEUTRAL TRACTABLE ORGANICS	RESULTS	
FLUORANTHENE	62	mg/kg
BUTYL BENZYL PHTHALATE	< 4.6	mg/kg
BENZIDINE	< 4.1	mg/kg
BENZO (A) PYRENE	< 6	mg/kg
BENZO (G,H,I) PERYLENE	< 5.3	mg/kg
BENZO (K) FLUORANTHENE	< 4.6	mg/kg
INDENO (1,2,3-CD) PYRENE	< 4.6	mg/kg
NITROSODIMETHYLAMINE	< 36	mg/kg
DI-N-OCTYL PHTHALATE	< 3.8	mg/kg
4-CHLOROPHENYLPHENYL ETHER	< 8.4	mg/kg

GULF COAST LABORATORIES, INC.
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ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-02 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68953

PARAMETERS	RESULTS	
Antimony	< 45	mg/kg
Arsenic	8.8	mg/kg
Beryllium	120	mg/kg
Cadmium	11	mg/kg
Chromium	190	mg/kg
Copper	330	mg/kg
Lead	860	mg/kg
Mercury	0.6	mg/kg
Nickel	100	mg/kg
Total PCB's	< 5	mg/kg
Selenium	< 0.2	mg/kg
Silver	5.9	mg/kg
Thallium	< 30	mg/kg
Zinc	1760	mg/kg

GULF COAST LABORATORIES, INC.
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Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-02 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68953

B[illegible]-NEUTRAL EXTRACTABLE ORGANICS	RESULTS	
1,4-DICHLOROBENZENE	< 0.63	mg/kg
BIS (2-CHLOROISOPROPYL) ETHER	< 0.6	mg/kg
BIS (2-CHLOROETHYL) ETHER	< 0.59	mg/kg
NITROBENZENE	< 0.61	mg/kg
ACENAPHTHYLENE	< 0.2	mg/kg
2,6-DINITROTOLUENE	< 1.2	mg/kg
4-BROMOPHENYLPHENYL ETHER	< 0.65	mg/kg
D[illegible]ETHYL PHTHALATE	< 0.25	mg/kg
DI-N-BUTYL PHTHALATE	< 0.13	mg/kg
3,3-DICHLOROBENZIDINE	< 0.8	mg/kg
BENZO (B) FLUORANTHENE	< 0.4	mg/kg
BIS (2-ETHYLHEXYL) PHTHALATE	< 0.41	mg/kg
1,3-DICHLOROBENZENE	< 0.77	mg/kg
1,2-DICHLOROBENZENE	< 0.78	mg/kg
HEXACHLOROBUTADIENE	< 0.95	mg/kg
NAPHTHALENE	< 0.28	mg/kg
[illegible]S (2-CHLOROETHOXY) METHANE	< 0.56	mg/kg
ACENAPHTNENE	< 0.43	mg/kg

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ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-02 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68953

BASE-NEUTRAL EXTRACTABLE ORGANICS	RESULTS	
FLUORENE	< 0.36	mg/kg
2,4-DINITROTOLUENE	< 0.91	mg/kg
HEXACHLOROBENZENE	< 0.38	mg/kg
ANTHRACENE	< 0.2	mg/kg
DIETHYL PHTHALATE	< 0.26	mg/kg
PYRENE	4.2	mg/kg
CHRYSENE	< 0.29	mg/kg
BENZO (A) ANTHRACENE	< 0.28	mg/kg
DIBENZO (A,H) ANTHRACENE	< 0.54	mg/kg
HEXACHLOROETHANE	< 1.6	mg/kg
N-NITROSODI-N-PROPYLAMINE	< 4.2	mg/kg
1,2,4-TRICHLOROBENZENE	< 0.8	mg/kg
HEXACHLOROCYCLOPENTADIENE	< 1	mg/kg
2-CHLORONAPHTHALENE	< 0.4	mg/kg
ISOPHORONE	< 0.3	mgkg
AZOBENZENE	< 0.23	mg/kg
NITROSODIPHENYLAMINE	< 0.86	mg/kg
PHENANTHRENE	2.5	mg/kg

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
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ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-02 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68953

E-NEUTRAL RACTABLE ORGANICS		RESULTS	
FLUORANTHENE		7.5	mg/kg
BUTYL BENZYL PHTHALATE	<	0.45	mg/kg
BENZIDINE	<	0.4	mg/kg
BENZO (A) PYRENE	<	0.59	mg/kg
BENZO (G,H,I) PERYLENE	<	0.52	mg/kg
BENZO (K) FLUORANTHENE	<	0.45	mg/kg
INDENO (1,2,3-CD) PYRENE	<	0.45	mg/kg
N 'ITROSODIMETHYLAMINE	<	3.6	mg/kg
DI-N-OCTYL PHTHALATE	<	0.38	mg/kg
4-CHLOROPHENYLPHENYL ETHER	<	0.82	mg/kg

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-03 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68954

PARAMETERS	RESULTS	
Antimony	< 50	mg/kg
Arsenic	0.9	mg/kg
Beryllium	28	mg/kg
Cadmium	13	mg/kg
Chromium	84	mg/kg
Copper	25	mg/kg
Lead	190	mg/kg
Mercury	< 0.05	mg/kg
Nickel	26	mg/kg
Total PCB's	149	mg/kg
Aroclor 1248	71	mg/kg
Aroclor 1260	78	mg/kg
Selenium	0.26	mg/kg
Silver	6.2	mg/kg
Thallium	< 30	mg/kg
Zinc	1700	mg/kg

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-03 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68954

ATILE ORGANICS	RESULTS
CHLOROMETHANE	< 150 mg/kg
VINYL CHLORIDE	< 150 mg/kg
CHLOROETHANE	< 150 mg/kg
BROMOMETHANE	< 150 mg/kg
ACROLEIN	< 150 mg/kg
ACRYLONITRILE	< 150 mg/kg
METHYLENE CHLORIDE	< 150 mg/kg
T CHLOROFLUOROMETHANE	< 150 mg/kg
1,1-DICHLOROETHYLENE	< 150 mg/kg
1,1-DICHLOROETHANE	< 150 mg/kg
TRANS-1,2-DICHLOROETHYLENE	< 150 mg/kg
CHLOROFORM	< 150 mg/kg
1,2-DICHLOROETHANE	< 150 mg/kg
1,1,1-TRICHLOROETHANE	< 150 mg/kg
CARBON TETRACHLORIDE	< 150 mg/kg
BROMODICHLOROMETHANE	< 150 mg/kg
2-DICHLOROPROPANE	< 150 mg/kg

BDL = BELOW DETECTION LIMIT

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-753

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-03 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68954

LATILE ORGANICS	RESULTS
TRANS-1,3-DICHLOROPROPENE	< 150 mg/kg
TRICHLOROETHYLENE	< 150 mg/kg
BENZENE	< 150 mg/kg
CIS-1,3-DICHLOROPROPENE	< 150 mg/kg
1,1,2-TRICHLOROETHANE	< 150 mg/kg
DIBROMOCHLOROMETHANE	< 150 mg/kg
BROMOFORM	< 150 mg/kg
1,1,2,2-TETRACHLOROETHYLENE	< 150 mg/kg
1,1,2,2-TETRACHLOROETHANE	< 150 mg/kg
TOLUENE	< 150 mg/kg
CHLOROBENZENE	< 150 mg/kg
ETHYLBENZENE	< 150 mg/kg
2-CHLOROETHYL VINYL ETHER	< 150 mg/kg
DICHLORODIFLUOROMETHANE	< 150 mg/kg
BIS(CHLOROMETHYL)ETHER	< 150 mg/kg
XYLENE	< 150 mg/kg

BDL = BELOW DETECTION LIMIT

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-75

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-03 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68954

BASE-NEUTRAL TRACTABLE ORGANICS	RESULTS	
1,4-DICHLOROBENZENE	< 6.5	mg/kg
BIS (2-CHLOROISOPROPYL) ETHER	< 6.2	mg/kg
BIS (2-CHLOROETHYL) ETHER	< 6.3	mg/kg
NITROBENZENE	< 6.4	mg/kg
ACENAPHTHYLENE	< 2.3	mg/kg
2,6-DINITROTOLUENE	<13	mg/kg
4-BROMOPHENYLPHENYL ETHER	< 6.8	mg/kg
DIMETHYL PHTHALATE	< 2.8	mg/kg
-N-BUTYL PHTHALATE	244	mg/kg
3,3-DICHLOROBENZIDINE	< 8.3	mg/kg
BENZO (B) FLUORANTHENE	< 4.2	mg/kg
BIS (2-ETHYLHEXYL) PHTHALATE	1356	mg/kg
1,3-DICHLOROBENZENE	< 8	mg/kg
1,2-DICHLOROBENZENE	< 8.1	mg/kg
HEXACHLOROBUTADIENE	< 9.8	mg/kg
NAPHTHALENE	165	mg/kg
S (2-CHLOROETHOXY) METHANE	< 5.8	mg/kg
ACENAPHTNENE	< 4.5	mg/kg

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-03 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68954

BASE-NEUTRAL EXTRACTABLE ORGANICS	RESULTS	
FLUORENE	< 3.7	mg/kg
2,4-DINITROTOLUENE	< 9.4	mg/kg
HEXACHLOROBENZENE	< 4.1	mg/kg
ANTHRACENE	< 2.2	mg/kg
DIETHYL PHTHALATE	< 2.8	mg/kg
PYRENE	80	mg/kg
CHRYSENE	< 3.2	mg/kg
BENZO (A) ANTHRACENE	< 3	mg/kg
DIBENZO (A,H) ANTHRACENE	< 5.7	mg/kg
HEXACHLCROETHANE	<17	mg/kg
N-NITROSODI-N-PROPYLAMINE	<43	mg/kg
1,2,4-TRICHLOROBENZENE	< 8.3	mg/kg
HEXACHLOROCYCLOPENTADIENE	<11	mg/kg
2-CHLORONAPHTHALENE	< 4.2	mg/kg
ISOPHORONE	< 3.1	mgkg
AZOBENZENE	< 2.5	mg/kg
N-NITROSODIPHENYLAMINE	< 8.7	mg/kg
PHENANTHRENE	142	mg/kg

GULF COAST LABORATORIES, INC.
2417 Bond St., University Park, Illinois 60466
Phones (312) 534-5200 (219) 885-7077 (815) 723-7533

ANALYTICAL REPORT

TO: Mid America Enrivonmental
13840 South Halsted
Riverdale, Il 60627

ATTN: Mr. Phil Newton

DATE: Sept. 5, 1985

RE: S-03 Soil Sample U.S. Scrap
Sample Date: 08/17/85
GCL# 68954

BE-NEUTRAL TRACTABLE ORGANICS	RESULTS	
FLUORANTHENE	118	mg/kg
BUTYL BENZYL PHTHALATE	83	mg/kg
BENZIDINE	< 4.2	mg/kg
BENZO (A) PYRENE	< 6.2	mg/kg
BENZO (G,H,I) PERYLENE	< 5.5	mg/kg
BENZO (K) FLUORANTHENE	< 4.8	mg/kg
INDENO (1,2,3-CD) PYRENE	< 4.8	mg/kg
NITROSODIMETHYLAMINE	< 37	mg/kg
DI-N-OCTYL PHTHALATE	43	mg/kg
4-CHLOROPHENYLPHENYL ETHER	< 8.6	mg/kg

ATTACHMENT B

STS LTD. AND IEPA ANALYTICAL DATA

TABLE 2

Chemical Analyses*
Ground Water Monitoring Wells

U.S. Scrap Site

Well No.	G-101		G-102		G-103		G-104		G-105		G-106	
Chemical Constituent (ppm) / Date Samples Obtained	6/23/81	10/27/81	6/25/81	10/27/81	6/29/81	10/27/81	6/24/81	10/27/81	6/24/81	10/27/81	10/27/81	Limits**
Aliphatic Hydrocarbons	1.50	10.00			1.20	54.00			22.00	2.70		
Bromenyl - 2 - 01		0.18										
C3-Benzenes	1.00	6.80		3.20	0.58	12.30						
C4-Benzenes	1.20	3.90		0.92	0.70	51.30						
C5-Benzenes						11.30						
1,3 -Dichloro-1-Methylbenzene						3.20						
Dimethylnaphthalene		0.65				0.57						
Ethylbenzene					0.49	30.00						
Ethylmethylbenzene			0.64									
Ethylphenol		2.10				7.10		3.80				
Fatty Acid Methylester			0.29									
Isophorone					0.40	18.00			2.20			
Methylbiphenyl		0.22										
Methylbenzenol							0.96					
Methylnaphthalene		0.57		0.17								
Methylphenol		5.30						11.20			6.30	
4-Methyl-2-Nitrophenol						2.70						
4-Methyl-2-Pentanol							22.00					
4-Methyl-2-Pentanone	5.10	3.60					22.00					
Naphthalene	0.56	1.90		0.81	0.22	6.70		0.45	1.30	0.55		
Nitrophenol						3.20						
PCB's		0.029		0.022		1.20		0.044		0.12	0.0056	
Phenol		11.00				5.00		4.30			9.50	
Toluene	4.80	12.00			1.20	46.00	57.00	32.00	25.00	7.70		
Trichloroethene		0.68				4.30						
Trimethylcyclohexanol	5.20		2.30	1.40			1.50	6.60				
Trimethylcyclohexanone	4.90	7.20	6.20	12.00		5.70	9.70	22.00				
Trimethylnaphthalene		0.38										
Trimethyl-3-Cyclohexene-1-Methanol Acetate							1.90					
Xylenes	10.00	22.00	14.00	27.00	0.47	120.00	24.00	22.00	47.00	11.00		
Alkalinity	1,300	1,130	1,050	2,740	2,500	3,650	1,200	2,800	320	540	NT	NE
Ammonia	52.0	56.0	20.0	52.0	32.0	28.0	80.0	54.0	0.43	1.3	0.91	1.5
Arsenic	0.00	0.018	0.004	0.05	0.18	0.12	0.019	0.13	0.009	0.09	0.02	0.05
Barium	0.3	2.0	0.2	INT	INT	INT	INT	INT	0.	INT	INT	1.0
BOD-5	>1,266	>2,192	NT	189	NT	>2,147	NT	>2,167	NT	371	NT	30.0
Boron	1.2	1.2	1.7	4.1	16.3	12.0	4.4	5.4	1.5	2.3	NT	1.0
Cadmium	0.00	0.01	0.00	0.00	1.2	1.2	0.00	0.00	0.00	0.01	0.01	0.01
Calcium	275	225	270	412	1,389	1,302	1,189	1,319	121	1,186	NT	
COD	2,820	4,000	535	1,610	149,500	34,000	27,200	20,000	850	2,360	1,720	NE
Chloride	500	600	160	440	530	660	950	940	23	36	NT	250
Chromium (Cr tot.)	0.01	0.69	0.01	0.32	0.25	0.20	0.05	0.33	0.01	0.12	0.13	0.05
Chromium (Cr + 6)	0.00	0.00	0.00	0.00	C1	INT	C1	INT	0.00	0.00	NT	0.05
Copper	0.02	0.48	0.00	0.44	0.56	0.75	0.01	0.36	0.18	0.96	0.51	0.02
Cyanide	NT	0.02	NT	0.01	NT	NT	NT	0.17	NT	0.00	NT	0.025
Fluoride	7.0	8.8	1.4	1.2	2.2	3.1	0.9	0.9	0.8	0.8	NT	1.4
Hardness	1,400	1,300	1,400	2,300	5,400	5,900	5,700	7,600	260	420	NT	NE
Iron	2.0	52.9	0.4	57.9	227.3	250.3	420.4	560.4	10.0	178.1	182.4	1.0
Lead	0.00	1.87	0.00	0.58	0.15	6.98	0.00	0.42	0.00	0.37	0.32	0.05
Magnesium	125	165	195	500	1,026	256	797	934	29.5	59	316	NE
Manganese	0.93	1.20	0.94	1.27	27.6	30.6	13.46	15.7	0.23	5.86	4.78	0.15
Mercury	0.0000	<0.00005	0.0000	<0.00005	0.001	<0.0025	0.0000	0.00030	0.0000	<0.00005	<0.00005	0.0005
Nickel	0.2	0.2	0.2	0.9	1.6	2.2	2.3	3.3	0.0	0.2	0.1	1.0
Nitrate-Nitrite	0.1	0.1	0.2	0.0	42.0	25.0	0.1	0.1	0.3	0.1	0.2	
pH (units)	8.2	8.2	7.6	7.2	6.1	6.2	6.2	6.1	7.0	7.4	NT	6.5-9.0
Phenolics	68.0	84.0	0.250	0.560	122.5	120.0	58.75	62.0	0.270	0.260	0.095	
Phosphorus	0.12	2.9	0.18	2.0	1.1	5.2	0.25	2.1	0.32	3.1	NT	0.05
Potassium	124.0	153.0	42.3	119	1,475	162	151.3	178	5.2	16.0	12.7	NE
R.O.E. (180°C)	4,000	4,150	2,130	3,550	2,580	10,600	13,400	15,500	765	830	NT	500
Selenium	0.007	0.014	0.003	0.008	0.002	0.25	0.027	0.13	0.002	0.01	0.001	0.01
Silver	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.005
Sodium	516	717	152	382	492	466	633	702	51.3	157	NT	NE
Specific Conductance (umhos/cm)	4,346	4,678	2,221	4,901	5,337	5,494	7589	10,793	629	1,122	NT	NE
Sulfate	350	55	790	33	1,230	1,040	950	1,240	30	39	NT	250
Zinc	0.2	5.1	0.1	1.7	122	123	0.2	11.1	0.4	5.2	0.5	1.0

*Analyses performed by the Illinois Environmental Protection Agency

**As submitted to STS by the Illinois Attorney General's Office on January 4, 1982.

NT indicates sample not tested for this constituent
INT indicates interference
C1 indicates color interference

TABLE 4

Chemical Analyses*
Soil Samples from Borings

Chemical Constituent (ppm)	Sample No.	CS101	CS112	CS111	CS110	CS131	CS133	CS132	CS102	CS103	CS104	CS108	CS117
	Boring No.	G-101	G-102	G-102	G-102	G-103	G-103	G-103	G-104	G-104	G-105	G-105	G-132
	Depth (ft)	7.5-9	2.5-4	4-6	6-7	0-1.2	5-7	10-11	5-7	7.5-9	0-1.5	2.5-4.5	12.5-14.5
Aliphatic Hydrocarbons		150	100	70	120	700	35	56	170	790		2,100	47
C_3-Benzene									390	560		2,600	
C_4 Benzene			57	12	19				95	560		1,900	
C_5-Benzene										55		450	
Napthalene									78	180		710	
Toluene		90							440	1,400		3,100	
Xylenes		360	320	18	39		230	76	2,200	3,300	20	6,800	
Ammonia		2.5	3.2	1.8	1.6				1.2				
Arsenic		<0.001	<0.001	<0.001	0.002				0.008				
Barium		0.1	0.0	0.0	0.0				0.0				
Boron		0.4	0.6	0.3	0.4				0.4				
Cadmium		0.00	0.00	0.00	0.00				0.00				
Chlorides		28	5	8	8				15				
Chromium (Cr tot.)		0.00	0.00	0.00	0.00				0.00				
Copper		0.00	0.00	0.00	0.00				0.03				
Iron		0.2	0.0	0.1	0.2				0.0				
Lead		<0.03	<0.03	<0.03	<0.03				<0.03				
Manganese		0.15	0.04	0.09	0.06				<0.01				
Mercury		<0.05ug/l	<0.05ug/l	<0.05ug/l	<0.05ug/l				<0.05ug/l				
Nickel		0.0	0.0	0.0	0.0				0.0				
pH (units)		7.6	7.9	7.6	7.9				8.4				
Phenols		6,200	0.043	0.068	0.063				0.770				
Phosphorus		0.02	0.02	0.03	0.03				0.03				
Selenium		<0.001	<0.001	<0.001	<0.001				0.003				
Sulfate		33.0	3	4	5				135				
Zinc		0.1	0.1	0.0	0.0				0.0				

*Analyses performed by the Illinois Environmental Protection Agency.

Chemical Analyses*

Surface Samples **

Chemical Constituent (ppm)	Sample Numbers**				
	CS 109	CS 113	CS 114	CS 115	CS 116
Alkalinity	850				
Ammonia	1.7				
Arsenic	0.007				
Barium	0.2				
BOD-5	417				
Boron	2.0				
Cadmium	0.00				
Calcium	151				
COD	860				
Chloride	120				
Chromium (CR total)	0.04				
Chromium (CR + 6)	0.00				
Copper	0.04				
Cyanide	0.00				
Fluoride	1.7				
Hardness	1000				
Iron	11.3				
Lead	0.12				
Magnesium	182				
Manganese	1.06				
Mercury	0.0000				
Nickel	0.2				
Nitrate-Nitrite	0.0				
pH (units)	8.1				
Phenolics	1.000				
Phosphorus	0.58				
Potassium	41.2				
R.O.E. (180° C)	1440				
Selenium	0.004				
Silver	0.00				
Sodium	67.9				
Specific Conductance(umhos/cm)	1470				
Sulfate	12				
Zinc	0.4				
Aliphatic Hydrocarbons		4,800	130	1,300	21,000
C_3-Benzene		3,800	97		
C_4-Benzene		5,400		270	
Fatty Acid Methylesters		1,100		980	
Fatty Acids		830		2,000	
Isophorone				1,000	
Methylnapthalene		430			
Napthalene		2,200		140	
Phthalic Acid			74		
Stearic Acid			380		
Tetradecanoic Acid	0.51				
Toluene		5,300	280	1,900	5,100
Trimethylcyclonexanal	0.46				
Trimethylcyclohexanone	0.34				
Xylenes		4,000	610	1,500	4,200
Sulfide	57.7				

* Analyses performed by the Illinois Environmental Protection Agency

**Sample CS 109 - Oily residue obtained on ground surface. Light gray with solvent odor.

**Sample CS 113 - Tan, viscous fluid leaking from drum marked: DeSoto Chemical. Drum found near center of site.

**Sample CS 114 - Black, viscous fluid with no detectable odor.

**Sample CS 115 - Black, viscous fluid with solvent odor.

**Sample CS 116 - Black sludge with slight solvent odor.

Chemical Analyses*

Samples from Test Pit Excavations**

Chemical Constituent (ppm)	Sample Numbers**					
	CS 125	CS 126	CS 127	CS 128	CS 129	CS 130
Aliphatic Hydrocarbons	2,500	124	4.20	2,700		680
C_3-Benzene				220		1,400
C_4-Benzene		11				
Isophorone	190					
Napthalene		8.6				
Phthalic Anhydride					2,900	
Pthalates					1,100	23,000
Styrene				800		
Toluene		84		1,500	520	370
Trimethylcyclohexanol		15				
Trimethylcyclohexanone		38				
Xylenes	180	85	0.63	1,200	88	510

* Analyses performed by the Illinois Environmental Protection Agency

**Sample CS 125 - Test Pit No.2 @ 6' depth (bottom of pit). Brown liquid with solvent odor.

**Sample CS 126 - Test Pit No.3 @ 4' depth (bottom of pit). Brown liquid with solvent odor.

**Sample CS 127 - Test Pit No.4 @ 4' depth - Clear liquid with black solids. Solvent odor.

**Sample CS 128 - Test Pit No.2. Sample from smashed 55-gallon drum found in test pit. Red colored semi-solid material with slight solvent odor.

**Sample CS 129 - Test Pit No.2. Sample from smashed 55-gallon drum found in test pit. Caramel colored semi-solid material with slight solvent odor.

**Sample CS 130 - Test Pit No.9. Sample from smashed 55-gallon drum found in test pit. White colored solid to semi-solid material with no odor.

TABLE 7

Illinois Pollution Control Board

Chapter 3: Water Pollution

	Surface		Groundwater		Effluent	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
Alkalinity	NE	NE	NE	NE	NE	NE
Ammonia (NH_4)	NE	1.5	NE	1.5	NE	NE
Arsenic (As)	NE	1.0	NE	.05	NE	.25
Barium (Ba)	NE	5.0	NE	1.0	NE	2.0
BOD-5	NE	NE	NE	30.0	NE	30.0
Boron (B)	NE	1.0	NE	1.0	NE	NE
Cadmium (Cd)	NE	.05	NE	.01	NE	.15
COD	NE	NE	NE	NE	NE	NE
Chloride (Cl)	NE	500	NE	250	NE	NE
Chromium (Cr Tot.)	NE	NE	NE	.05	NE	NE
Chromium (Cr+3)	NE	1.0	NE	1.0	NE	1.0
Chromium (Cr+6)	NE	.05	NE	.05	NE	.3
Copper (Cu)	NE	.02	NE	.02	NE	1.0
Cyanide (Cn)	NE	.025	NE	.025	NE	.1
Dissolved Oxygen	5.0	NE	5.0	NE	NE	NE
Fecal Coliform	NE	400.0	NE	400.0	NE	400.0
Flouride (F)	NE	1.4	NE	1.4	NE	15.0
Hardness	NE	NE	NE	NE	NE	NE
Iron, Total (Fe)	NE	1.0	NE	1.0	NE	2.0
Iron, Dissolved (Fe)	NE	NE	NE	.5	NE	.5
Lead (Pb)	NE	.1	NE	.05	NE	.1
Magnesium (Mg)	NE	NE	NE	NE	NE	NE
Manganese (Mn)	NE	1.0	NE	.15	NE	1.0
Mercury (Hg)	NE	.0005	NE	.0005	NE	.0005
Nickel (Ni)	NE	1.0	NE	1.0	NE	1.0
Nitrate (NO_3)	NE	NE	NE	10.0	NE	NE
Oil	NE	NE	NE	[illegible]	NE	15.0
pH	6.5	9.0	6.5	9.0	5.0	10.0
Phenols	NE	.1	NE	.001	NE	.3
Phsophorus (P)	NE	.05	NE	.05	NE	1.0
Potassium (K)	NE	NE	NE	NE	NE	NE
B.O.E.	NE	1000	NE	500	NE	3500
Selenium (Se)	NE	1.0	NE	.01	NE	1.0
Silica (Si)	NE	NE	NE	NE	NE	NE
Silver (Ag)	NE	.005	NE	.005	NE	.1
Sodium (Na)	NE	NE	NE	NE	NE	NE
Specific Conductance	NE	NE	NE	NE	NE	NE
Sulfate (SO_4)	NE	500	NE	250	NE	NE
Sulfide	NE	NE	NE	NE	NE	NE
Total Solids	NE	NE	NE	NE	NE	NE
Total Suspended Solids	NE	NE	NE	15.0	NE	15.0
Zinc (Zn)	NE	1.0	NE	1.0	NE	1.0

Time Collected: 300pm

Lab # D022988

SPECIAL ANALYSIS FORM

Date Collected: 12-27-81

Date Received OCT 29 1981

G133

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G133

PHYSICAL OBSERVATIONS, REMARKS: Strong odor

TESTS REQUESTED: Organic Solv.-PCBs

COLLECTED BY: ~~CHARLES GRAHAM~~ TRANSPORTED BY:

LABORATORY

RECEIVED BY: GEP DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81 J. Hurley

Toluene = 770. mg/l
Xylenes = 720. mg/l
C_3-Benzene = 800 ug/l
Trimethylcyclohexanol = 310. ug/l
Trimethylcyclohexanone = 2600 ug/l
PCBs = 4.6 mg/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

D022988

H.W.

Time Collected: 2:00P

Date Collected: 10.22.81

Lab # D022987

SPECIAL ANALYSIS FORM

Date Received OCT 30 1981

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

G132

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G132

PHYSICAL OBSERVATIONS, REMARKS: Black
very Strong odor

TESTS REQUESTED: Organic Solv. - PCB's

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: KM DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81 J. Hurley

Toluene = 19,000. ug/l
4-Methyl-2-pentanone = 11,000. ug/l
Xylenes = 13,000. ug/l
C_3-Benzene = 420. ug/l
Trimethylcyclohexanol = 520. ug/l
Trimethylcyclohexanone = 1800. ug/l
Naphthalene = 840. ug/l
phenol = 8900. ug/l
Methylphenol = 8700. ug/l
PCBs = 2.4 ug/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

H W

D022987

Time Collected: 1:20 P

Date Collected: 10-27-81

Lab # 022986

SPECIAL ANALYSIS FORM

Date Received OCT 30 1981

G106

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G106

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED: Organic Solv.

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81

J. Hurley

PCBs = 5.6 ug/l (ppb)
Phenol = 9600. ug/l
Methylphenol = 6300. ug/l

LPC-8A 5/77 (NOT FOR DATA PROCESSING)

H.W. 022986

Time Collected: 2000 A

Date Collected: 10-22-81

Lab # 002985

SPECIAL ANALYSIS FORM

Date Received OCT 29 1981

G105

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G105

PHYSICAL OBSERVATIONS, REMARKS: Strong odor

TESTS REQUESTED: Organic Soln. PCBs

COLLECTED BY: ~~CHARLES GEBIS~~ [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: EW DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81 [illegible]

Toluene = 7700. ug/l
Xylenes = 11,000 ug/l
Naphtholene = 550. ug/l
Aliphatic hydrocarbons = 2700. ug/l
PCBs = 120. ug/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

H.W.

002985

Time Collected: 1100 Lab # D022982

SPECIAL ANALYSIS FORM

Date Collected: 10.27.81 Date Received OCT 30 1981

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

G102

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G102

PHYSICAL OBSERVATIONS, REMARKS: Very strong odor

TESTS REQUESTED: Organic Solv. - PCBs

COLLECTED BY: ~~Charles Gesler~~ [signature] TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: EWD DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81 J Hurley

Xylenes = 27,000. ug/l

C_3-Benzenes = 3,300. ug/l

C_4-Benzenes = 920. ug/l

Trimethylcyclohexanol = 1400. ug/l

Trimethylcyclohexanone = 12,000. ug/l

Naphthalene = 810. ug/l

Methylnaphthalene = 170. ug/l

PCBs = 22. ug/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

H W D022982

Time Collected: 10:00 Lab # D022981

Date Collected: 10-27-81 SPECIAL ANALYSIS FORM Date Received OCT 29 1981

G101

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G101

RECEIVED
JAN 7 1982
ILL. E.P.A. - D.L.P.C.
STATE OF ILLINOIS

PHYSICAL OBSERVATIONS, REMARKS: Black
Very Strong odor

TESTS REQUESTED: Organic Solvents - PCBs

COLLECTED BY: ~~CHARLES OSBORN~~ TRANSPORTED BY:

LABORATORY

RECEIVED BY: GLP DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81

(Trichloroethylene)
Trichloroethene = 680. ug/l
Toluene = 12,000. ug/l
4-Methyl-2-Pentanone = 3800 ug/l
Xylenes = 22,000. ug/l
C_2-Benzenes = 6800. ug/l
C_4-Benzenes = 3900. ug/l
Trimethylcyclohexanone = 7200. ug/l
Naphthalene = 1900. ug/l
Methylnaphthalene = 570. ug/l
Dimethylnaphthalene = 650. ug/l

Trimethylnaphthalene = 380 ug/l
Biphenyl-2-ol = 180. ug/l
Methylbiphenyl = 230. ug/l
Aliphatic hydrocarbons = 10,000 ug/l
Phenol = 11,000. ug/l
Methylphenol = 6300. ug/l
Ethylphenol = 2100. ug/l
PCB = 29. ug/l

J Hurley

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

D022981

02403 UL127

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 03160032 (9) (16)

MONITOR POINT NUMBER 6102 (17) (20) DATE COLLECTED 102781 (21) (26)

Cook Co. - LPC REGION N (27)

Chi. (Location) / US Scrap (Responsible Party)

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

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

Stick-up 05 ft. (31) (33) Depth to water 4.2 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: Turbid

Collector comments: Very Strong odor

TD 95

[signature] LPC

Collected by Div. or Company

[signature] LPC

Transported by Div. or Company

LAB USE ONLY C002483

Lab No.

Date Rec'd 10 27 81

Rec'd by [signature] Time 4:20 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 12-19-81

[signature]

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) (77)

IEPA Lab (Y) (2)

LPCSM030

		PARAMETERS*	PPM
27	X	Alkalinity[1]	2740
31	X	Ammonia as N	520
37	X	Arsenic As	0.05
44	X	Barium Ba	Interference
49	X	BOD-5	189
53	X	Boron B	4.1
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	412
69	X	COD	1610
73	X	Chloride Cl	440

LPCSM040

27	X	Chromium Cr (tot)	0.32
33	X	Chromium CrIO	0.00
39	X	Copper Cu	0.44
45	X	Cyanide CN	0.01
52		Fecal Coli	
56	X	Fluoride F	1.3
61	X	Hardness CaCO3	2300
65	X	Iron Fe	67.9
70	X	Lead Pb	0.58

LPCSM050

27	X	Magnesium Mg	500
32	X	Manganese Mn	1.87
38	X	Mercury Hg	X
46	X	Nickel Ni	0.9
51	X	Nitrate-nitrite N	0.0
56		Oil and Grease	
60	X	pH (Units)	7.2
63	X	Phenolics	0.660
70	X	Phosphorus P	2.0
75	X	Potassium K	119

LPCSM060

27	X	R.O.E. (180°C)	3650
31	X	Selenium Se	0.008
38	X	Silver Ag	0.00
44	X	Sodium Na	382
49	X	SC (umhos/cm)	4901
53	X	Sulfate SO4	33
58	X	Zinc Zn	1.7
63			

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

[1] Alkalinity is to be determined as ppm of CaCO3 at pH 4.5.

HW

LPC-8 REV. 7/80

DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

02485 OCT27

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 03160032 (9) (16)

MONITOR POINT NUMBER G104 (17) (20) DATE COLLECTED 102781 (21) (26)

Cook Co. - LPC REGION N (27)

Chi / U.S. Scrap
(Location) (Responsible Party)

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

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

Stick-up 1.0 ft. (31) (33) Depth to water 5.2 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: LT. Green - Turb.

Collector comments: Very strong odor
TD 12.4

[signature] Collected by — LPC Div. or Company

[signature] Transported by — LPC Div. or Company

LAB USE ONLY
Lab No. C002485
Date Rec'd 10.27.81
Rec'd by [signature] Time 4:00 a.m. p.m.
Sample temp. acceptable YES NO
Sample properly preserved YES NO
Date completed
Date forwarded 12-14.81
[signature] Supervisor Signature

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

LPCSM020
Lab Comments:
*Cond 10193 (27) (36)
COD 20000 (37) (46)
RoE 15,500 (47) (56)
BOD > 2167 (57) (66)
Hg 0.00030 (67) (76)
Private Lab (X) (77)
IEPA Lab (X) (X)

		PARAMETERS	PPM
27	X	Alkalinity	2800
31	X	Ammonia as N	94.0 *
37	X	Arsenic As	0.13 *
44	X	Barium Ba	Interference
49	X	BOD 5	*
53	X	Boron B	5.4
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	1319 *
69	X	COD	*
73	X	Chloride Cl	940

LPCSM040

27	X	Chromium Cr (+6)	0.33
33	X	Chromium Cr	Interference
39	X	Copper Cu	0.36
45	X	Cyanide CN	0.17 *
52		Fecal Coli	
56	X	Fluoride F	0.9
61	X	Hardness CaCO3	7600
65	X	Iron Fe	563.4
70	X	Lead Pb	0.42

LPCSM050

27	X	Magnesium Mg	934 *
32	X	Manganese Mn	15.7 *
38	X	Mercury Hg	*
46	X	Nickel Ni	3.3
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	6.1
63	X	Phenolics	62.0 *
70	X	Phosphorus P	4.4 *
75	X	Potassium K	178 *

LPCSM060

27	X	R.O.E. (180°C)	*
31	X	Selenium Se	0.13 *
38	X	Silver Ag	0.00
44	X	Sodium Na	702 *
49	X	SC (umhos/cm)	*
53	X	Sulfate SO4	1240 *
58	X	Zinc Zn	11.1
63			

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

*Alkalinity is to be determined as ppm of CaCO3 at pH 4.5.

HW

02400 00121

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 03160032 (9) (16)

MONITOR POINT NUMBER G105 (17) (20) DATE COLLECTED 102781 (21) (26)

COOK Co. - LPC REGION N (27)

Chi (Location) / US. Scrap (Responsible Party)

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

Collected 9:00 a.m. p.m. Unable to collect sample (X) (30)

Stick-up 09 ft. (31) (33) Depth to water 322 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: Turbid

Collector comments: TD 69.7 - Bent PVC

Strong odor

[signature] LPC

Collected by Div. or Company

[signature] LPC

Transported by Div. or Company

LAB USE ONLY

Lab No. C002486

Date Rec'd 10-27-81

Rec'd by [signature] Time 4:00 a.m. (PM)

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 12-14-81

[signature] Daugherty

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) (77)

IEPA Lab (X) (X)

LPCSM030

		PARAMETERS*	PPM
27	X	Alkalinity[1]	640
31	X	Ammonia as N	1.3
37	X	Arsenic As	0.09
44	X	Barium Ba	Interference
49	X	BOD-5	371
53	X	Boron B	2.9
58	X	Cadmium Cd	0.01
64	X	Calcium Ca	1186
69	X	COD	2960
73	X	Chloride Cl	38

LPCSM040

27	X	Chromium Cr (tot)	0.12
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.96
45	X	Cyanide CN	0.00
52		Fecal Coli	
56	X	Fluorine F	0.8
61	X	Hardness CaCO3	420
65	X	Iron Fe	178.1
70	X	Lead Pb	0.37

LPCSM050

27	X	Magnesium Mg	597
32	X	Manganese Mn	6.86
38	X	Mercury Hg	X
46	X	Nickel Ni	0.2
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	7.4
63	X	Phenolics	0.260
70	X	Phosphorus P	3.7
76	X	Potassium K	19.0

LPCSM060

27	X	R.O.E. (TEOPO4)	880
31	X	Selenium Se	0.01
38	X	Silver Ag	0.00
44	X	Sodium Na	137
49	X	SC (umhos/cm)	1133
53	X	Sulfate SO4	59
58	X	Zinc Zn	5.2
63			

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

[1] Alkalinity is to be determined as ppm of CaCO3 at pH 4.5.

HW

TC-8 REV. 7/77

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 0316003 2 (9)–(16)

MONITOR POINT NUMBER G06 (17)–(20) DATE COLLECTED 102781 (21)–(26)

Cook Co. - LPC REGION N (27)

Chi (Location) / US. Scrap (Responsible Party)

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

Time Collected 4:20 p.m. Unable to collect sample (X) (30)

Stick-up 1.1 ft. (31) (33) Depth to water 2.9 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: Turbid

Collector comments: TD13.8 slow Rec. only part. sample

Collected by LPC Div. or Company

Transported by Div. or Company

LAB USE ONLY

Lab No. C002487

Date Rec'd 10-27-81

Rec'd by Time 4:20 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 12-14-81

Supervisor Signature

Name Environmental Protection Agency

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

LPCCM020 Lab Comments:

Hg < 0.00005 (27) (30)

(37) (40)

(47) (50)

(57) (60)

(67) (70)

Private Lab (X)

IEPA Lab (X) (X) (77)

C002487

27		Fe	
31			
44			
49		Fe	
53		Boron	
58	X	Cadmium Cd	
64		Calcium Ca	
69	X	COD	
73		Chloride Cl	

LPCCM040

27	X	Chromium Cr (tot)	0
33		Chromium Cr6	
39	X	Copper Cu	0.51
45		Cyanide CN	X
52		Fecal Coli	X X X X
56		Fluoride F	X X X
61		Hardness CaCO3	X X X X
65	X	Iron Fe	183.4 X X X
70	X	Lead Pb	0.38 X X

LPCCM060

27	X	Magnesium Mg	416 X X X
32	X	Manganese Mn	4.78 X X
38	X	Mercury Hg	X2XX
46	X	Nickel Ni	0.1 X X X
51	X	Nitrate-nitrite N	0.2 X X X
56		Oil and Grease	X X X
60		pH (Units)	X X X X X
63	X	Phenolics	0.095 X
70		Phosphorus P	X X
75	X	Potassium K	12.7 X X X

LPCCM080

27		Selenium Se	X X X X
31	X	Selenium Se	0.001 X
36	X	Silver Ag	0.00 X X
44		Sodium Na	X X X
49		Sp. Cond (umhos/cm)	X X X X
53		Sulfate SO_4	X X X
58	X	Zinc Zn	2.5 X X X
63			

*Analyses are to be performed on unfiltered samples. *Values exceeding ppm of pieces shown are reported in the lab comment section; tests requested but not run should also be explained in the lab comments section.

*Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

HW

LPC-8 REV. 3/77

02488 00127

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 03160032 (9) (16)

MONITOR POINT NUMBER G132 (17) (20) DATE COLLECTED 102781 (21) (26)

Cook Co. - LPC REGION W (27)

Ch.: (Location) / U.S. Scrap (Responsible Party)

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

Time Collected 200 (a.m.) Unable to collect sample (X) (30)

Stick-up 0.5 ft. (31) (33) Depth to water 4.5 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: Black

Collector comments: TD 25.6 Very Strong odor

[signature] Collected by — LPC Div. or Company

[signature] Transported by — LPC Div. or Company

LAB USE ONLY

Lab No. C002488

Date Rec'd 10-27-81

Rec'd by [signature] Time 1:20 a.m. p.m.

Sample temp. acceptable YES NO
Sample properly preserved YES NO

Date completed
Date forwarded 12-14-81

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:

COD 11200 (27) (36)
BOD > 2167 (37) (46)
ROE 10,600 (47) (56)
Hg - 0.00013 (57) (66)
(76)

Private Lab (X) (77)
IEPA Lab (X) (X)

LPCSM030

		PARAMETERS	PPM*
27	X	Alkalinity[1]	3250
31	X	Ammonia as N	110.0
37	X	Arsenic As	0.07
44	X	Barium Ba	Interference
49	X	BOD-5	*
53	X	Boron B	5.7
58	X	Cadmium Cd	0.00
64	X	Calcium Ca	1183
69	X	COD	*
73	X	Chloride Cl	1200

LPCSM040

27	X	Chromium Cr (tot)	0.47
33	X	Chromium Cr+6	Interference
39	X	Copper Cu	0.12
45		Cyanide CN	
52		Fecal Coli	
56	X	Fluoride F	2.3
61	X	Hardness CaCO3	6600
65	X	Iron Fe	297.9
70	X	Lead Pb	0.57

LPCSM050

27	X	Magnesium Mg	872
32	X	Manganese Mn	6.34
38	X	Mercury Hg	*
46	X	Nickel Ni	2.3
51	X	Nitrate-nitrite N	0.0
56	X	[illegible]	
60	X	pH (Units)	6.5
63	X	Phenolics	13.6
70	X	Phosphorus P	4.4
75	X	Potassium K	160

LPCSM060

27	X	R.O.E. (1-20%)	*
31	X	Selenium Se	0.04
38	X	Silver Ag	0.00
44	X	Sodium Na	435
49	X	SS (umhos/cm)	9708
53	X	Sulfate SO4	1080
58	X	Zinc Zn	2.0
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 [illegible] CaCO3 at pH 4.5.

HW

LPC-8 REV [illegible]

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 0316003 2 (9) (16)

MONITOR POINT NUMBER G133 (27) (28) DATE COLLECTED 102281 (21) (26)

Cook Co. - LPC REGION- N (27)

Chi / U.S. Scrap
(Location) (Responsible Party)

Legal (1); Illegal (2); Indicate One: 2 (38) Board Order (X) (29)

Time Collected 3:00 p.m. Unable to collect sample (X) (30)

Stick-up 0.8 ft. (31) (33) Depth to water 9.8 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: Turbid

Collector comments: TD 25.1 Strong odor

Collected by LPC Div. or Company

Transported by LPC Div. or Company

LAB USE ONLY

Lab No. C002489

Date Rec'd 10.27.81

Rec'd by Jackson Time 4:00 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 12.14.81

J Daugherty

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

Address of Laboratory

LPCCM020
Lab Comments:

Se <0.01 (27) (30)

(37) (40)

(47) (50)

(57) (60)

(67) (70)

Private Lab (X) (77)

IEPA Lab (X) (X)

LPCCM010

		PARAMETERS*	PPM
27	X	Alkalinity	1740
31	X	Ammonia as N	98.0
37	X	Arsenic As	0.05
44	X	Barium Ba	Interference
49	X	BOD 5	122
53	X	Boron B	2.8
58	X	Cadmium Cd	0.01
64	X	Calcium Ca	606
69	X	COD	1000
73	X	Chloride Cl	520

LPCCM020

27	X	Chromium Cr (+6)	0.24
33	X	Chromium CrT	0.00
39	X	Copper Cu	0.46
45		Cyanide CN	
52		Fecal Coli	
56	X	Fluoride F	2.6
61	X	Hardness (CaCO3)	1200
65	X	Iron Fe	81.8
70	X	Lead Pb	0.16

LPCCM020

27	X	Magnesium Mg	262
32	X	Manganese Mn	2.61
38	X	Mercury Hg	
46	X	Nickel Ni	0.9
52	X	Nitrate-nitrite N	0.0
56		Oil and Grease	
60	X	pH (Units)	7.3
63	X	Phenolics	1.28
70	X	Phosphorus P	0.89
76	X	Potassium K	246

LPCCM020

27	X	Solids, Total (105°C)	3200
31	X	Selenium Se	
38	X	Silver Ag	0.00
44	X	Sodium Na	446
49	X	SP (umhos/cm)	4633
53	X	Sulfate SO_4	290
58	X	Zinc Zn	1.1
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.

*Parameters are to be determined as per of EPA Part 4.5.

H Cu

LPC-8 (Rev. 7/79)

DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

02482 OCT27

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 6 0 0 3 2 (16)

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

Cook Co. - LPC REGION (27) N

Chicago (Location) / US Scrap (Responsible Party)

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

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

Stick-up (31) 1.1 (33) ft. Depth to water (from T.O.C.) (34) 6.2 (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: Black

Collector comments: Oil Sheen-strong odor TD 13.6

Collected by: [signature] Div. or Company: LPC

Transported by: [signature] Div. or Company: LPC

LAB USE ONLY

Lab No. C002482

Date Rec'd 10-27-81

Rec'd by [signature] Time 4:20 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 12-14-81

Supervisor (signature) Daugherty

Name Environmental Protection Agency Division of Laboratory Services

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

LPCCM020 Lab Comments:

(27) BOD > 219.2 (30)

(37) Hg < 0.00005 (46)

(47) ___ (56)

(57) ___ (66)

(67) ___ (76)

Private Lab (X)

IEPA Lab (X) (77) (X)

		PARAMETERS*	PPM*
		LPCCM010	
27	X	Alkalinity	1130
31	X	Ammonia as N	58.0
37	X	Arsenic As	0.018
44	X	Barium Ba	2.0
49	X	BOD 5	*
53	X	Boron B	1.5
58	X	Cadmium Cd	0.01
64	X	Calcium Ca	225
69	X	COD	4000
73	X	Chloride Cl	600
		LPCCM040	
27	X	Chromium Cr (tot)	0.69
33	X	Chromium Cr+6	0.00
39	X	Copper Cu	0.48
45	X	Cyanide CN	0.02
52		Fecal Coli	
56	X	Fluoride F	8.8
61	X	Hardness CaCO3	1000
65	X	Iron Fe	55.9
70	X	Lead Pb	1.57
		LPCCM060	
27	X	Magnesium Mg	155
32	X	Manganese Mn	1.20
38	X	Mercury Hg	X
46	X	Nickel Ni	0.2
51	X	Nitrate-nitrite N	0.1
56		Oil and Grease	
60	X	pH (Units)	8.2
63	X	Phenolics	84.0
70	X	Phosphorus P	2.8
76	X	Potassium K	153
		LPCCM080	
27	X	Total Solids (105°C)	4150
31	X	Selenium Se	0.014
37	X	Silver Ag	0.00
44	X	Sodium Na	717
49	X	SC (umhos/cm)	4678
53	X	Sulfate SO_4	65
58	X	Zinc Zn	5.1
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.

*Alkalinity to be determined as pH of 4.5.

CHEMICAL ANALYSIS FORM

02484 OCT 27

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 03 160032 (9)–(16)

MONITOR POINT NUMBER G103 (17)–(20) DATE COLLECTED 02281 (21)–(26)

Cook Co. - LPC REGION N (27)

Ch. (Location) / U.S. Scrap (Responsible Party)

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

Time Collected 1215 p.m. Unable to collect sample (X) (30)

Stick-up 04 ft. (31)–(33) Depth to water 7.2 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) (41) 1

Sample Appearance: Turbid - oil sheen

Collector comments: TM 20.4 Very strong odor

Collected by — Div. or Company

Transported by — Div. or Company

LAB USE ONLY

Lab No. C002484

Date Rec'd 10. 27. 81

Rec'd By — Time 4 dc. a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed

Date forwarded 12-14-81

Supervisor (Analytical Section)

Environmental Control Division of Laboratory Services

Name

Address 2121 W. Taylor Street

of Lab Chicago, Illinois 60612

LPCSM020

Lab Comments:

(27) COD 34000 (30)

(37) BOE 13,600 (40)

(47) BOD > 2147 (50)

(57) Hg - 0.0026 (60)

easy

(67) — (70)

Private Lab (X)

IEPA Lab (X) (77)

		PARAMETERS*	PPM
27	X	Alkalinity	3650
31	X	Ammonia as N	28.0
37	X	Arsenic As	0.12
44	X	Barium Ba	Interference
49	X	BOD 5	*
53	X	Boron B	12.0
58	X	Cadmium Cd	1.3
64	X	Calcium Ca	1302
69	X	COD	*
73	X	Chloride Cl	660
		CONTINUED	
27	X	Chromium Cr (Total)	0.30
33	X	Chromium Cr6+	Interference
39	X	Copper Cu	0.79
45		Cyanide CN	
52		Fecal Coli	
56	X	Fluoride F	3.1
61	X	Hardness CaCO3	5900
65	X	Iron Fe	250.8
70	X	Lead Pb	6.88
		CONTINUED	
27	X	Magnesium Mg	858
32	X	Manganese Mn	30.6
38	X	Mercury Hg	*
46	X	Nickel Ni	2.2
52	X	Nitrate-nitrite N	25.0
56		Oil and Grease	
60	X	pH (Units)	6.2
63	X	Phenolics	120.0
70	X	Phosphorus P	5.2
76	X	Potassium K	162
		CONTINUED	
27	X	Selenium (Total)	*
31	X	Silver Ag	0.25
38	X	Silver Ag	0.00
44	X	Sodium Na	466
49	X	TDS (mmhos/cm)	8494
53	X	Sulfate SO4	1040
57	X	Zinc Zn	123
63			

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

*Reliability to be determined by QC of lab data analysis.

LPC-8 REV 7/79

HW

IV

Time Collected: 12:40 pm

Lab # [illegible]

SPECIAL ANALYSIS FORM

Date Collected: 9/22/81

Date Received [illegible]

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago / US Scrap	C316[illegible]

SOURCE OF SAMPLE: (Exact Location)

C SICI Boring #1 7.5' to 9' depth.

RECEIVED

SEP 30 1981

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

PHYSICAL OBSERVATIONS, REMARKS:

grayish soil no odor

TESTS REQUESTED: chlorinated hydrocarbons, xylene, toluene, benzene, cresols

COLLECTED BY: TB.

TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/10/81

Toluene = 90 µg/g (ppm)

Xylenes = 360. µg/g

Aliphatic hydrocarbons = 150. µg/g

RECEIVED

SEP 18 1981

E.P.A. – D.L.P.C.
STATE OF ILLINOIS

All samples reports from this set were held until the entire set was complete.

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

[illegible]

Time Collected: 2:15 pm

Lab # D07[illegible]55

SPECIAL ANALYSIS FORM

Date Collected: 6/22/81

Date Received JUN 30 1981

CS102

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago / US Steel	0316010022

SOURCE OF SAMPLE: (Exact Location)

CS102 Boring #4 5'-7' depth.

PHYSICAL OBSERVATIONS, REMARKS:

dark gray, slight oil sheen, slight solvent odor

TESTS REQUESTED: chlorinated Hydrocarbons, xylene, benzene cresols toluene

COLLECTED BY: [illegible]

TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/11/81 [illegible]

Toluene = 440. ug/g
Xylenes = 2200. ug/g
C_3- Benzene = 390 ug/g
C_4- Benzene = 95 ug/g
Naphthalene = 78. ug/g
Aliphatic hydrocarbons = 170. ug/g

RECEIVED
SEP 18 1981
I.E.P.A. - D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

D07[illegible]55

DU[illegible]656

Time Collected: 3:30 pm

Date Collected: 6/22/81

SPECIAL ANALYSIS FORM

Lab #

Date Received JUN 30 1981

CS103

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/ US. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location)

CS 103 Boring #A 7.5'-9.0' depth

PHYSICAL OBSERVATIONS, REMARKS:

solvent smell, black granular w/ slight oil sheen

TESTS REQUESTED: chlorinated hydrocarbons, xylene, benzene toluene, ore sole

COLLECTED BY: [signature] TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: [signature] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J Hurley

Toluene = 1400. ug/g
Xylenes = 3300. ug/g
C_3-Benzene = 560 ug/g
C_4-Benzene = 560. ug/g
C_5-Benzene = 55. ug/g
Naphthalene = 180. ug/g
Aliphatic hydrocarbons = 790 ug/g

RECEIVED
SEP 18 1981
E.P.A. - D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

DU[illegible]656

Time Collected: 2000A

Date Collected: 10.22.81

Lab # 002985

SPECIAL ANALYSIS FORM

Date Received OCT 29 1981

G105

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G105

PHYSICAL OBSERVATIONS, REMARKS: Strong odor

TESTS REQUESTED: Organic Soln. PCBs

COLLECTED BY: ~~CHARLES GEBIO~~ [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: EW DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81 [illegible]

Toluene = 7700. ug/l
Xylenes = 11,000 ug/l
Naphthalene = 550. ug/l
Aliphatic hydrocarbons = 2700. ug/l
PCBs = 120. ug/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

H.W. 002985

Time Collected: 830A

Date Collected: 12.22.81

Lab # D022981

SPECIAL ANALYSIS FORM

Date Received OCT 29 1991

G104

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G104

PHYSICAL OBSERVATIONS, REMARKS: LT Green
Very Strong odor

TESTS REQUESTED: Organic Soil - PCBs

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: EW DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81

Toluene = 32,000. ug/l
Xylenes = 22,000. ug/l
Trimethylcyclohexanol = 6600. ug/l
Trimethylcyclohexanone = 21,000. ug/l
Nophtholene = 450 ug/l
phenol = 4300. ug/l
Methylphenol = 11,000 ug/l
Ethylphenol = 3800. ug/l
PCBs = 44. ug/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

D022981

D022983

Time Collected: 12:20

Date Collected: 10.27.81

Lab #

SPECIAL ANALYSIS FORM

Date Received OCT 29 1981

G103

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) G103

PHYSICAL OBSERVATIONS, REMARKS: very strong odor
oil sheen

TESTS REQUESTED: Organic Solv. - PCBs

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 12/30/81 DATE FORWARDED: 12/30/81

Trichloroethene = 4300 ug/l
Toluene = 46,000. ug/l
Ethylbenzene = 30,000 ug/l
Xylenes = 120,000. ug/l
C_3-Benzenes = 12,000. ug/l
C_4-Benzenes = 51,000. ug/l
C_5-Benzenes = 11,000. ug/l
Naphthalene = 6100. ug/l
Dimethylnaphthalene = 570. ug/l
2,3-Dihydro-4-Methylindene = 3200 ug/l

Trimethylcyclohexanone = 5700 ug/l
Isophorone = 18,000. ug/l
Aliphatic hydrocarbons = 54,000 ug/l
Phenol = 5000. ug/l
Ethylphenol = 7100. ug/l
4-Methyl-2-Nitrophenol = 3700 ug/l
Nitrophenol = 3200 ug/l
PCBs = 1200. ug/l

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

H.W.

D022983

DC[illegible]657

Time Collected: 10:[illegible]

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 6/23/81

Date Received JUN 30 1981

CS104

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago / US Scrap	0316 0022

SOURCE OF SAMPLE: (Exact Location)

CS 104 Boring # 5 0'-1.5' depth

PHYSICAL OBSERVATIONS, REMARKS:

black granular, slight solvent odor
toluene, Cresols.

TESTS REQUESTED: chlorinated hydrocarbons, xylene, benzene

COLLECTED BY: J.B.

TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/10/81

J Hurley

Xylenes = 20. µg/g

RECEIVED
SEP 18 1981
I.E.P.A. - D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

DC[illegible]657

Time Collected: 9.20A

Lab # DC[illegible]658

SPECIAL ANALYSIS FORM

Date Collected: 6.23.81

Date Received JUN 30 1981

CS108

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US-Scrap.	03760022

SOURCE OF SAMPLE: (Exact Location) CS108 Boring # 5
2.5' To 4.5'

PHYSICAL OBSERVATIONS, REMARKS: Black-granular-Solvent odor

TESTS REQUESTED: Xylene-Toluene-Benzene-Chlorinated Hydrocarbons-Cresols

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J Hurley

Toluene = 3100. ug/g
Xylenes = 6800. ug/g
C_3-Benzene = 2600. ug/g
C_4-Benzene = 1900. ug/g
C_5-Benzene = 450. ug/g
Naphthalene = 710 ug/g
Aliphatic hydrocarbons = 2100 ug/g

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E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

H.W.

Time Collected: 1100A

Date Collected: 6-24-81

Lab # D0[illegible]659

SPECIAL ANALYSIS FORM

Date Received JUN 30 1981

CS110

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS110-B2 - 6' to 7' depth

PHYSICAL OBSERVATIONS, REMARKS: solv. odor

TESTS REQUESTED: Chlorinated Hydrocarbons - Toluene, Xylene, Benzene - Cresols

COLLECTED BY: TB T. Borecki TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J Hurley

Xylenes = 39. ug/g

C_4-Benzene = 19 ug/g

Aliphatic hydrocarbons = 120. ug/g

RECEIVED

SEP 18 1981

[illegible] — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

D0[illegible]659

Time Collected: 10:00 A

Date Collected: 6-24-81

SPECIAL ANALYSIS FORM

Lab # DU[illegible]

Date Received JUN 30 1981

CS111

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS111 — Boring 2 — 4' To 6' Depth

PHYSICAL OBSERVATIONS, REMARKS: Strong solv. odor

TESTS REQUESTED: Chlorinated hydrocarbons — Xylene Toluene — Benzene — cresols.

COLLECTED BY: TB T Boucher TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81 J Hurley

Xylenes = 18 ug/g
C_4-Benzene = 12 ug/g
Aliphatic hydrocarbons = 70. ug/g

RECEIVED
SEP 18 1981
[illegible] — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

HW

DU[illegible]

Time Collected: 9:00 A

Date Collected: 6-24-81

Lab # [illegible]

SPECIAL ANALYSIS FORM

Date Received JUN 30 1981

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

CS112

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS112 - B2 - 2½ - 4' depth

PHYSICAL OBSERVATIONS, REMARKS: Solv. odor

TESTS REQUESTED: Chlorinated hydrocarbons - Xylene Toluene, Benzene, Cresols

COLLECTED BY: JB Tom Boucher TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J Hanley

Xylenes = 320. ug/g
Cy-Benzene = 57. ug/g
Aliphatic hydrocarbons = 100. ug/g

RECEIVED
SEP 18 1981
E.P.A. - D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 HW (NOT FOR DATA PROCESSING)

DC21759

Time Collected: 2:20 P

Lab #

SPECIAL ANALYSIS FORM

JUL 7 1981

Date Collected: 6-29-81

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

G103

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US. Scrap.	0316 0022

SOURCE OF SAMPLE: (Exact Location) G103

PHYSICAL OBSERVATIONS, REMARKS: Green

TESTS REQUESTED: Chlorinated Hydrocarbons - Toluene - Xylene - Benzene - Cresols

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

Toluene = 1300 ug/l
Xylenes = 470 ug/l
Ethylbenzene = 490. ug/l
C_3-Benzene = 580. ug/l
C_4-Benzene = 700. ug/l
Naphthalene = 230 ug/l
Isophorone = 400. ug/l
Aliphatic hydrocarbons = 1300. ug/l

RECEIVED
SEP 18 1981
I.E.P.A. - D.L.P.C.
STATE OF ILLINOIS

DC21759

LPC-8A 4/77 HW (NOT FOR DATA PROCESSING)

Time Collected: 3:20P

Date Collected: 6-29-81

Lab # DU[illegible]760

SPECIAL ANALYSIS FORM

Date Received JUL 7 1981

G133

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrape	03160022

SOURCE OF SAMPLE: (Exact Location) G133

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED: Chlorinated Hydrocarbons, Toluene-Xylene-Benzene-Cresols

COLLECTED BY: [signature] TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: [signature] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81 J Hurley

Toluene = 570 ug/l
Xylenes = 520 ug/l
Trimethylcyclohexanol = 450. ug/l
Trimethylcyclohexanone = 1300. ug/l
Aliphatic hydrocarbons = 610 ug/l

RECEIVED
SEP 18 1981
E.P.A. D.L.P.C.
STATE OF ILLINOIS

LPC-[illegible] (NOT FOR DATA PROCESSING) [illegible]

Time Collected: 11AM

Date Collected: 6-29-81

Lab # DU[illegible]51

SPECIAL ANALYSIS FORM

Date Received JUL 7 1981

CS 125

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) COLLECTED FROM BOTTOM OF TEST PIT #2 AT A DEPTH OF 6FT.

PHYSICAL OBSERVATIONS, REMARKS: BROWN COLORED LIQUID, SOLVENT ODOR

TESTS REQUESTED: CHLORINATED HYDROCARBONS, TOLUENE XYLENE, BENZENE, CRESOLS

COLLECTED BY: CHARLES GEBIEN TRANSPORTED BY: KEVIN PIERARD

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/87 DATE FORWARDED: 9/10/87

J Hurley

Xylenes = 180,000 ug/l (ppb)
Isophorone = 190,000 ug/l (ppb)
Aliphatic hydrocarbons = 2,500,000 ug/l (ppb)
(2500 ppm)

RECEIVED
SEP 18 1981
[illegible] U.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

DU[illegible]51

H 1.1

Time Collected: 4:15pm

Date Collected: 6/29/81

SPECIAL ANALYSIS FORM

Lab # DC[illegible]

Date Received JUL 7 1981

CS 128

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) COLLECTED FROM A SMASHED 55-GALLON DRUM WHICH WAS EXCAVATED FROM TEST PIT # 2.

PHYSICAL OBSERVATIONS, REMARKS: RED COLORED SEMI-SOLID. SLIGHT SOLVENT ODOR.

TESTS REQUESTED: CHLORINATED HYDROCARBONS, TOLUENE XYLENE, BENZENE, CRESOLS

COLLECTED BY: CHARLES GEBIEN

TRANSPORTED BY: KEVIN PICKARD

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED:

DATE FORWARDED: 9/10/81

J. Stanley

Toluene = 1500. ug/g
Xylenes = 1200 ug/g
Styrene = 800 ug/g
C_3-Benzene = 220. ug/g
Aliphatic hydrocarbons = 2700. ug/g

RECEIVED
SEP 18 1981
E.P.A. -- D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

DC[illegible]

H W

Time Collected: 4:20pm

Date Collected: 6/29/81

SPECIAL ANALYSIS FORM

Lab # DU[illegible]766

Date Received JUL 7 1981

CS 130

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) COLLECTED FROM A SMASHED 55-GALLON DRUM WHICH WAS EXCAVATED FROM TEST PIT #9.

PHYSICAL OBSERVATIONS, REMARKS: WHITE COLORED SOLID - SEMI-SOLID NO ODOR.

TESTS REQUESTED: CHLORINATED HYDROCARBONS, TOLUENE XYLENE, BENZENE, CRESOLS

COLLECTED BY: CHARLES GEBIEN

TRANSPORTED BY: KEVIN PIERARD

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED:

DATE FORWARDED: 9/10/81

Toluene = 370. µg/g
Xylenes = 510. µg/g
C_3-Benzene = 1400. µg/g
Aliphatic hydrocarbons = 680. µg/g
phthalates = 23,000. µg/g

RECEIVED
SEP 18 1981
I.E.P.A.-D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

H.W.

DU[illegible]766

Time Collected: 1115 A

Date Collected: 6.26.81

SPECIAL ANALYSIS FORM

Lab # D0[illegible]767

Date Received JUL 7 1981

CS131

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	Chicago/US. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS131 Boring 3 0-1.2'

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED: Chlorinated Hydrocarbons — Toluene Xylene — Benzene — Cresols

COLLECTED BY: TB

TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/10/81 J Hurley

Aliphatic hydrocarbons = 700. ug/g

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

HW (NOT FOR DATA PROCESSING)

D0[illegible]767

Time Collected: 11:45 A

Date Collected: 6-26-81

Lab # D07[illegible]768

SPECIAL ANALYSIS FORM

Date Received JUL 7 1981

CS132

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US Scrap	0316 0022

SOURCE OF SAMPLE: (Exact Location) CS132 Boring 3 10'-11'

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED: Chlorinated hydrocarbons — Toluene, Xylene — Benzene — Cresols

COLLECTED BY: JD

TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/10/81

J. Hurley

Xylenes = 76 ug/g
Aliphatic hydrocarbons = 56. ug/g

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 HW (NOT FOR DATA PROCESSING) D07[illegible]

Time Collected: 11:30A

Date Collected: 8-26-81

Lab # DC[illegible]769

SPECIAL ANALYSIS FORM

Date Received SEP 7 1981

CS133

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US. Scrap	031/0022

SOURCE OF SAMPLE: (Exact Location) CS133 Boring 3
5'-7'

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED: Chlorinated Hydrocarbons — Toluene — Xylene — Benzene — Cresols

COLLECTED BY: JB TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81 J. Hunley

Xylenes = 230. µg/g
Aliphatic hydrocarbons = 35. µg/g

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
~~STATE OF ILLINOIS~~

LPC-8A 4/77 FW (NOT FOR DATA PROCESSING) [illegible]

Time Collected: 4pm

Date Collected: 6/29/81

SPECIAL ANALYSIS FORM

Lab # DC[illegible]65

Date Received JUL 7 1981

CS 129

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	CHICAGO/U.S. SCRAP	03160032

SOURCE OF SAMPLE: (Exact Location) COLLECTED FROM A SMASHED 55-GALLON DRUM WHICH WAS EXCAVATED FROM TEST PIT #2.

PHYSICAL OBSERVATIONS, REMARKS: CARMEL-COLORED SEMI-SOLID SOLVENT ODOR.

TESTS REQUESTED: CHLORINATED HYDROCARBONS, TOLUENE XYLENE, BENZENE, CRESOLS

COLLECTED BY: CHARLES GEBIEN

TRANSPORTED BY: KEVIN PIERARD

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/10/81

J. Stanley

Toluene = 520 ug/g
Xylenes = 88 ug/g
phthalic anhydride = 2900 ug/g
phthalates = 1100. ug/g

RECEIVED
SEP 18 1981
I.E.P.A. — D.L.P.C.
~~STATE OF ILLINOIS~~

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

H.W.

DC[illegible]65

DUP 1667

Time Collected: 2:15

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 6-23-81

Date Received: 9-30-1981

CS709

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
COOK	Chicago/US Scrap	03/60022

SOURCE OF SAMPLE: (Exact Location) 200' N of Silos 25' W of MSD fence

PHYSICAL OBSERVATIONS, REMARKS: Oil residue on Top — LT. Gray — Solvent odor

TESTS REQUESTED: Chlorinated Hydrocarbons Toluene, Xylene, Benzene / Cresols

COLLECTED BY: MWS

TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible]

DATE COMPLETED: 9/10/81

DATE FORWARDED: 9/10/81

J. Hulen

Trimethylcyclohexanal = 460 ug/l (ppb)
Trimethylcyclohexanone = 340 ug/l
Tetradecanoic Acid = 510. ug/l

RECEIVED
SEP 18 1981
ENVIRONMENTAL PROTECTION AGENCY
STATE OF ILLINOIS

DUP 1667

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

H.W.

DLP 1068

Time Collected: 2:15 P

Date Collected: 6.24.81

SPECIAL ANALYSIS FORM

Lab #

Date Received JUN 30 1981

CS113

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS113 - Center of site near drums. Material was coming from a drum marked DeSoto Chi. HTS. 300 N. State Chi - 45-608

PHYSICAL OBSERVATIONS, REMARKS: Tan - Viscous

TESTS REQUESTED: Xylene, Toluene, Benzene - Chlorinated hydrocarbons - cresols

COLLECTED BY: C.G. TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: KED DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81 J. Hurley

Toluene = 5300. ug/g
Xylenes = 4000. ug/g
C_3-Benzene = 3800. ug/g
C_4-Benzene = 5400 ug/g
Naphthalene = 2200. ug/g
Methylnaphthalene = 430. ug/g
Aliphatic hydrocarbons = 4800. ug/g
Fatty acid methylesters = 1100. ug/g
Fatty acids = 830. ug/g

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 HW (NOT FOR DATA PROCESSING)

DLP 1068

DO21669

Time Collected: 2:45

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 6-24-81

Date Received JUN 30 1981

CS114

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS114 - 50 yds NW of CS113

PHYSICAL OBSERVATIONS, REMARKS: Black-Viscous-No odor

TESTS REQUESTED: Xylene - Toluene - Benzene - Chlorinated hydrocarbons

COLLECTED BY: C.G. TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

Toluene = 280. µg/g
Xylenes = 610. µg/g
C3-Benzene = 97. µg/g
phthalic acid = 74. µg/g
Stearic acid = 380. µg/g
Aliphatic hydrocarbons = 130. µg/g

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 HW (NOT FOR DATA PROCESSING) DO21669

Time Collected: 3:15

Lab # DU[illegible]

SPECIAL ANALYSIS FORM

Date Collected: 6-24-81

Date Received JUN 30 1981

CS115

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE READING:	FILE NUMBER:
COOK	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS115

PHYSICAL OBSERVATIONS, REMARKS: Black - Viscous - Solvent odor

TESTS REQUESTED: Xylene, Toluene, Benzene, Chlorinated hydrocarbons - Cresols

COLLECTED BY: C.G. TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J. Hurley

Toluene = 1900. mg/g
Xylenes = 1500. mg/g
Cy-Benzene = 270. mg/g
Naphthalene = 140. mg/g
Isophorone = 1000. mg/g
Aliphatic hydrocarbons = 1300. mg/g
Fatty acid methylester = 980 mg/g
Fatty acids = 2000. mg/g

RECEIVED
SEP 18 1981
[illegible] - D.L.P.C.
STATE OF ILLINOIS

DU[illegible]

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

HW

Time Collected: 3:30 Lab # D0[illegible]671

SPECIAL ANALYSIS FORM

Date Collected: 6.24.81 Date Received JUN 30 1981

CS116

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS116

PHYSICAL OBSERVATIONS, REMARKS: Black Sludge - Slight Solvent odor

TESTS REQUESTED: Xylene, Toluene, Benzene, Chlorinated hydrocarbons - Cresols

COLLECTED BY: C.G. TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81 J Hurley

Toluene = 5100. ug/g
Xylenes = 4200. ug/g
Aliphatic hydrocarbons = 21,000. ug/g

RECEIVED
SEP 18 1981
[illegible] - D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

HW

D0[illegible]671

DOT 1672

Time Collected: 3:15 P

Lab #

SPECIAL ANALYSIS FORM

Date Collected: 6.25.81

Date Received JUN 30 1981

CS 117

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) CS117 - Boring 1 penn central 12½'-14½'

PHYSICAL OBSERVATIONS, REMARKS: Black + grey clay Slight solvent odor

TESTS REQUESTED: Chlorinated Hydrocarbons, Toluene, Xylene, Benzene, cresols

COLLECTED BY: [signature] TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: [signature] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J Hurley

Aliphatic hydrocarbons = 47. mg/g

RECEIVED
SEP 18 1981
U.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 (NOT FOR DATA PROCESSING)

DOT 1672

Time Collected: 11:45 A

Date Collected: 6-23-81

Lab # D071673

SPECIAL ANALYSIS FORM

Date Received JUN 30 1981

G101

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) G101 S.E. site

PHYSICAL OBSERVATIONS, REMARKS: Black - Strong odor

TESTS REQUESTED: Chlorinated Hydrocarbons - Xylene, Toluene, Benzene - Cresols

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

[illegible]

Toluene = 4800. ug/l (ppb)

4-Methyl-2-pentanone = 5100 ug/l

Xylenes = 10,000. ug/l

C_3-Benzene = 1000. ug/l

C_4-Benzene = 1300. ug/l

Trimethylcyclohexanol = 5200 ug/l

Trimethylcyclohexanone = 4900. ug/l

Naphthalene = 560. ug/l

Aliphatic hydrocarbons = 1500. ug/l

RECEIVED
SEP 18 1981
ENV. PROT. DEPT.
STATE OF ILLINOIS

LPC-8A 4/77 (NOT FOR DATA PROCESSING) D071673

H.W.

DU[illegible]74

Time Collected: 1:30P

Date Collected: 6-25-81

Lab #

SPECIAL ANALYSIS FORM

JUN 30 1981

Date Received

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
G102 Cook	Chicago/U.S. Scrap.	03160022

SOURCE OF SAMPLE: (Exact Location) G102

PHYSICAL OBSERVATIONS, REMARKS: Very Turbid
Strong odor

TESTS REQUESTED: Chlorinated hydrocarbons — Toluene, Xylene, Benzene — cresols

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

J. Hurley

Xylenes = 14,000 µg/l
Ethylmethylbenzene = 640 µg/l
Trimethylcyclohexanol = 2000. µg/l
Trimethylcyclohexanone = 6300. µg/l
Fatty acid methylester = 290. µg/l

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77

(NOT FOR DATA PROCESSING)

HW

[illegible]

D0[illegible]675

Time Collected: 200 P

Date Collected: 6-24-81

SPECIAL ANALYSIS FORM

Lab #

Date Received JUN 30 1981

G104

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/US Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) G104

PHYSICAL OBSERVATIONS, REMARKS:

TESTS REQUESTED: Chlorinated Hydrocarbons - Toluene - Xylene - Benzene - Cresols

COLLECTED BY: [signature] TRANSPORTED BY: [signature]

LABORATORY

RECEIVED BY: [signature] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81 [signature]

Toluene = 57,000. ug/l
4-Methyl-2-pentanol = 22,000. ug/l
4-Methyl-2-pentanone = 22,000. ug/l
Xylenes = 24,000. ug/l
methylhexanol = 960. ug/l
Trimethylcyclohexanol = 1600. ug/l
Trimethylcyclohexanone = 9700. ug/l
Trimethyl-3-cyclohexene-1-methanol acetate = 1900. ug/l

RECEIVED
SEP 18 1981
E.P.A. — D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 (NOT FOR DATA PROCESSING) D0[illegible]675

HW

Time Collected: 1:00 P

Date Collected: 6-24-81

SPECIAL ANALYSIS FORM

Lab # [illegible]

Date Received JUN 30 1981

G105

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL

COUNTY:	FILE HEADING:	FILE NUMBER:
Cook	Chicago/U.S. Scrap	03160022

SOURCE OF SAMPLE: (Exact Location) G105

PHYSICAL OBSERVATIONS, REMARKS: Very strong odor

TESTS REQUESTED: Chlorinated hydrocarbons
Toluene - Xylene - Benzene - cresols

COLLECTED BY: [illegible] TRANSPORTED BY: [illegible]

LABORATORY

RECEIVED BY: [illegible] DATE COMPLETED: 9/10/81 DATE FORWARDED: 9/10/81

Toluene = 26,000. ug/l
Xylenes = 47,000. ug/l
Isophorone = 2200. ug/l
Naphthalene = 1300. ug/l
Aliphatic hydrocarbons = 22,000. ug/l

RECEIVED
SEP 18 1981
I.E.P.A. - D.L.P.C.
STATE OF ILLINOIS

LPC-8A 4/77 HW (NOT FOR DATA PROCESSING)

ATTACHMENT C

INITIAL OVA SURVEY DATA
TAT 1985

WILSON DESIGNERS CONSULTANTS

BY _____ DATE _____ DIV _____ SHEET _____ OF _____

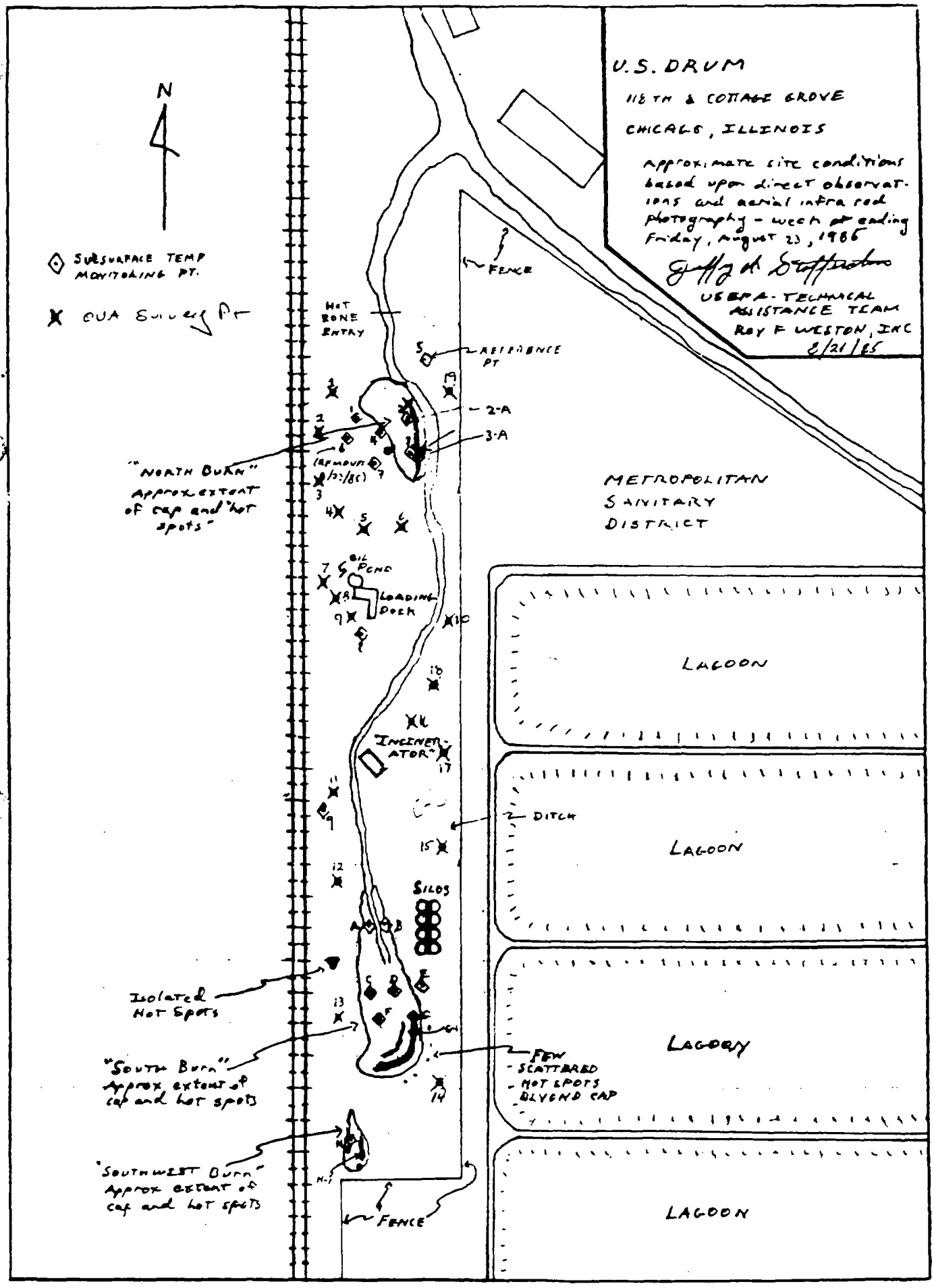
CHKD BY _____ DATE _____ DEPT _____ W.O. NO. _____

PROJECT _____

SUBJECT OVA Survey — U.S. Scrap

Point	OVA Reading (PPM) Waist height	Ground level	Ground upon Distribance	DATE	Ambient (ppm)	Description
1	5.3	5.4	5.5	8/27/85	5.4	
2	5.5	5.7	1000+	"	"	black viscous waste on surface
3	5.8	5.9	~20	"	"	black sludge deposit on surface
4	5.6	5.6	5.6	"	"	No vegetation on spot, barren
5	5.6	5.7	200	"	"	black viscous waste on surface
6	5.7	5.7	5.8	"	"	Barren area, no vegetation
7	5.6	5.6	5.6	8/28/85	5.2	Barren area, lightly vegetated
8	5.5	5.4	~20 up to 50	"	"	oily deposit
9	4.9	4.9	4.9	"	"	Barren, no vegetation, blue paint-like chip
10	5.0	5.4	5.4	"	"	ditch, black and reddish sediments
11	5.1	5.1	5.0	"	"	Barren - brick pieces/gravel on surface
12	5.7	5.6	5.6	"	"	" " " " "
13	4.8	5.0	5.0	"	"	Barren, no veg
14	5.0	5.0	5.0	"	"	Subsidence area, evidence of past burning
15	5.2	5.4	5.4	"	"	Barren area, no veg.
16	5.5	5.5	~12	"	"	Black sludge like material surr. by heavy veg
17	5.6	5.6	~7.5	"	"	Low area, black sludge under orangish sediment
18	5.3	5.4	~10 up to 35	"	"	"Lagoon" area, black sludge under orangish sediment
19	5.8	~7	~15 up to 50	"	"	Apparent seepage, leachate pooled - black oil layer over water layer
20	5.7	5.7	5.7	8/30/85	5.8	clay cap
21	5.7	~9 up to 10+	~15	"	"	clay cap - several cracks in cap where checked in vicinity of this point. Some yielded no increase over ambient, most yielded consistent readings of between 20 and 80 ppm. One yielded reading of >1000 ppm. Few spots in south clay cap checked w/ no increase over ambient

RFW 338-5-81


U.S. DRUM
118TH & COTTAGE GROVE
CHICAGO, ILLINOIS
Approximate site conditions based upon direct observations and aerial infra red photography - week ending Friday, August 23, 1985
USEPA - TECHNICAL ASSISTANCE TEAM
ROY F WESTON, INC
8/21/85
N
SUBSURFACE TEMP MONITORING PT.
QUA Survey Pt
FENCE
HOT ZONE ENTRY
REFERENCE PT
2-A
3-A
"NORTH BURN" APPROX EXTENT OF CAP and "hot spots"
METROPOLITAN SANITARY DISTRICT
OIL POND
LOADING DOCK
INCINERATOR
LAGOON
DITCH
LAGOON
SILOS
Isolated Hot Spots
"SOUTH BURN" Approx extent of cap and hot spots
LAGOON
FEW - SCATTERED - HOT SPOTS BLVEND CAP
"SOUTHWEST BURN" Approx extent of cap and hot spots
FENCE
LAGOON

WESTON
DESIGNERS CONSULTANTS

BY _____ DATE _____ DIV _____ SHEET _____ OF _____

CHKD BY _____ DATE _____ DEPT _____ W.O. NO. _____

PROJECT _____

SUBJECT _____

P2	164	
P3	196	
P5	202	
P8	>210	
P16	190	
P17	>210	
P18	192	BOILED
P19	200	BOILED

← Results of flash pt analysis received by Ron McFarland, M.I. America from Gulf Coast Labs via phone 9/5/85 ~1530 and given to Jeff Suffish TAT at same date & time

JFS 9/5/85 2230

↑ Alphanumeric designation = point + OVA survey pt # as designated by TAT during survey JHS

RFW 336-5-81

HP RUN # 6 OCT/15/85 TIME 12:48:41
ID:111061 BOTTLE 86
AREA %

RT	AREA	AREA %
0.62	116400	100.000

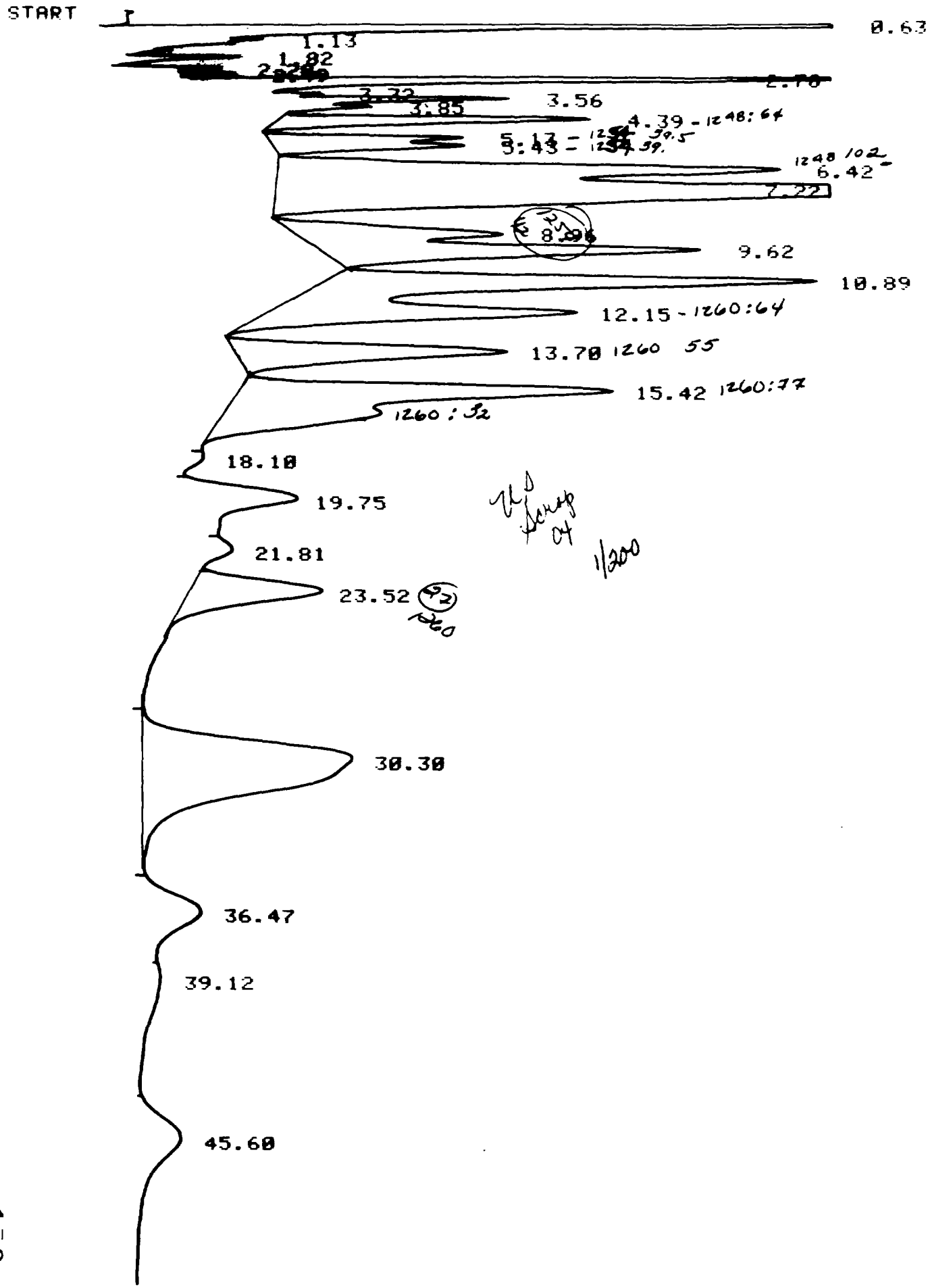
DIL FACTOR: 1.0000 E+ 0

TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	250	250

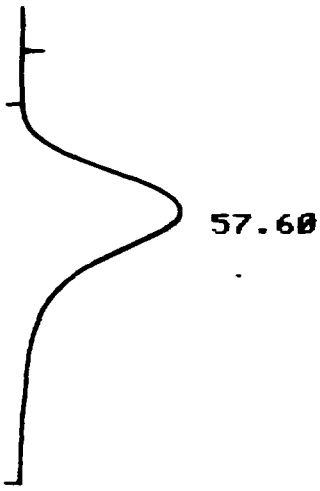
CHT SPD 0.50
ZERO 15.0
ATTN 2↑ 5
AUX SGNL +B

SUPELCO, INC., Bellefonte, PA Cat. No. 2-2987 (pad); Cat. 2988 (box of 10 pads)

SEP SEAS 0.00 0.43
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 46.1



SUPELCO, INC., Bellefonte, PA Cat. No. 2-2867 (pad); 2-2868 (box of 10 pads)



HP RUN # 7 OCT/15/85 TIME 13:56:24
ID:111061 BOTTLE 87
AREA %

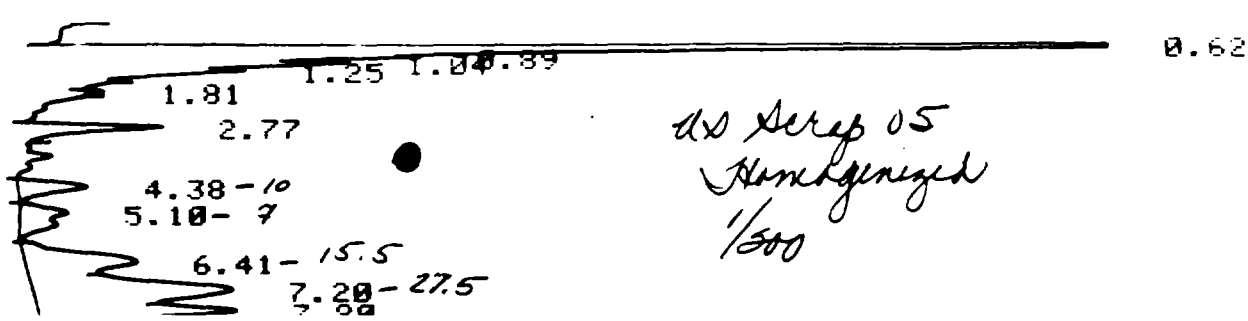
RT	AREA	AREA %
0.63	113100	6.984
2.78	74660	4.610
4.39	71480	4.414
6.42	141200	8.719
7.22	276000	17.042
8.96	88620	5.472
9.62	131500	8.120
10.89	159900	9.873
12.15	93960	5.802
13.70	61880	3.821
15.42	77800	4.804
23.52	67720	4.181
30.30	163300	10.083
57.60	98400	6.076

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	250	250

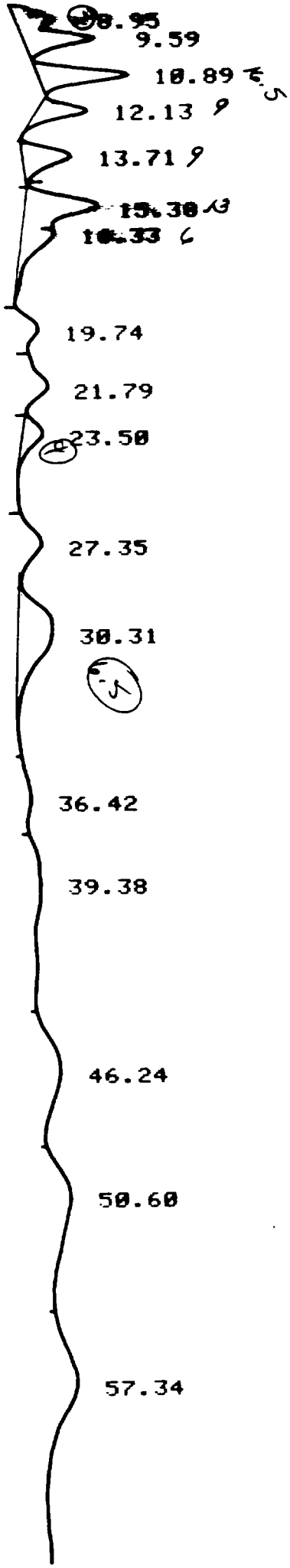
CHT SPD	0.50	
ZERO	15.0	
ATTN 2↑	5	
AUX SGNL	+B	
SLP SENS	0.00	0.40
AREA REJ	50000	
FLOW A	0.0	0.0
FLOW B	0.0	46.1

START



as Scrap 05
Homogenized
1/500

DUPELCO, INC., Bellefonte, PA Cat. No. 2-2987 (and): Cat. 2988 (box of 10 pads)



US Scrap 05
(Homogenized
Sample)

1/200

SUPELCO, INC., Bellefonte, PA Cat. No. 2-2987 (pad); 2-2988 (box of 10 pads)

HP RUN # 8 OCT/15/85 TIME 15:05:07

ID:111061 BOTTLE 88

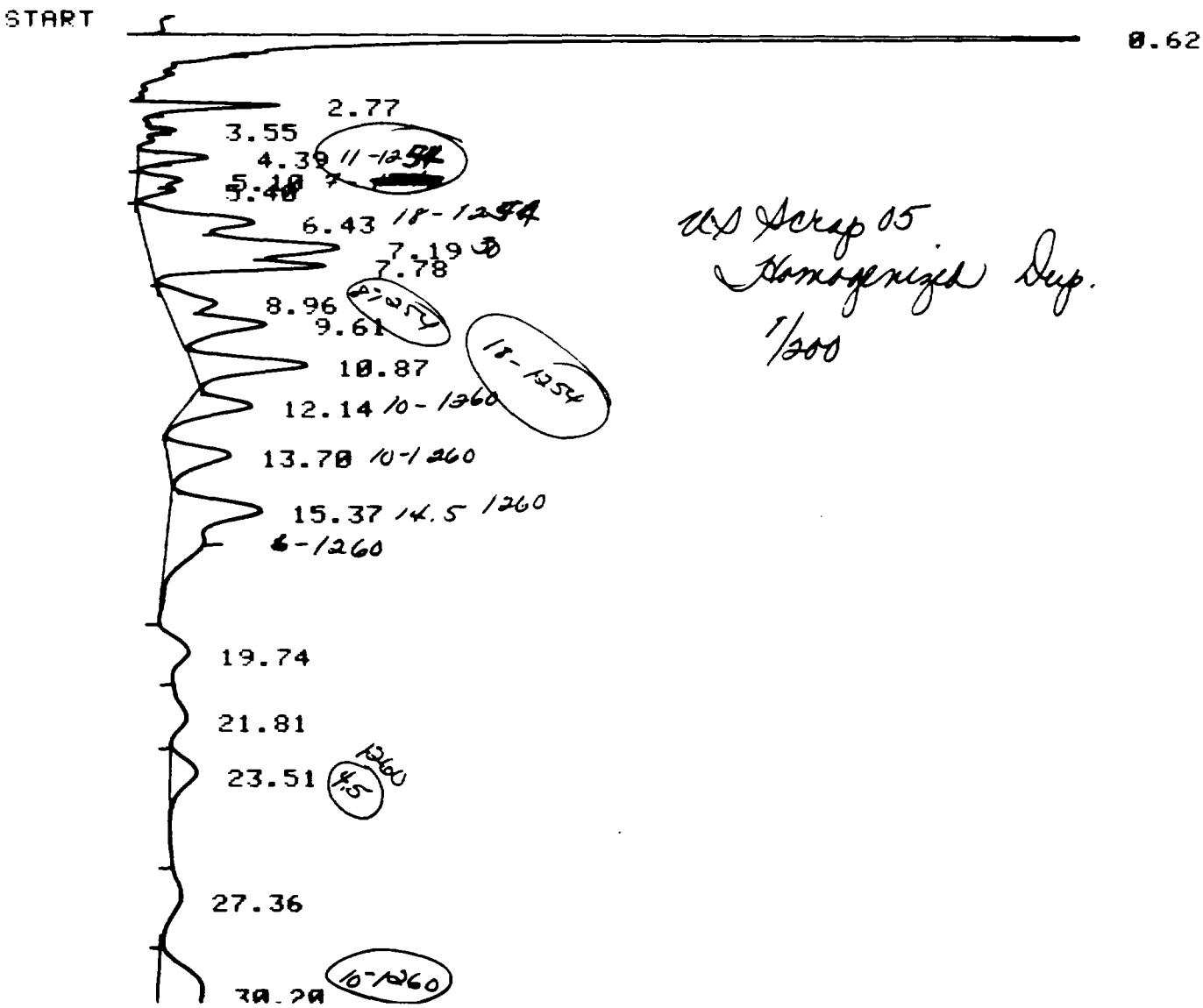
AREA %

RT	AREA	AREA %
0.62	77300	100.000

DIL FACTOR: 1.0000 E+ 0

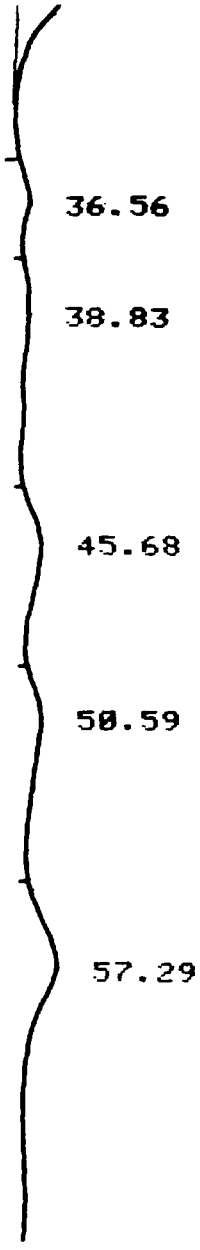
TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	250	250

CHT SPD	0.50	
ZERO	15.0	
ATTN 2↑	5	
AUX SGNL	+B	
SLP SENS	0.00	0.42
AREA REJ	50000	
FLOW A	0.0	0.0
FLOW B	0.0	46.1



US Scrap 05
Homogenized Dup.
1/200

SUPELCO, INC., Bellefonte, PA Cat. No. 2-2867 (pad); Cat. No. 2868 (box of 10 pads)



US Scrap 05
Homogenized
Sample

1/200

HP RUN # 9 OCT/15/85 TIME 16:12:50

ID:111061 BOTTLE 89

AREA %

RT	AREA	AREA %
0.62	83400	100.000

DIL FACTOR: 1.0000 E+ 0

TEMP1	400	210	210
TIME1	65.00		
INJ TEMP	400	250	250
FID TEMP	400	250	250
TCD TEMP	400	250	250
AUX TEMP	400	250	250

CHT SPD	0.50	
ZERO	15.0	
ATTN 2↑	5	
AUX SGNL	+B	
SLP SENS	0.00	0.42
AREA REJ	50000	

SUPELCO, INC., Bellefonte, PA Cat. No. 2-2987 (pad); -2988 (box of 10 pads)

Calculation Validation for PCB Mixtures 1260:1254

	Sample #	Date	Run #	Bottle #	ATTN 2ft	RT1	H1	RT2	H2	RT3	H3	RT4	H4	Height Total	ATTN Adjustment	Extract Conc.	Dilution Factor	Sample Volume	Final Conc.	% RE
	MIX A 1260	10/29	6	92	5	25.19	63	30.58	43.5	32.18	25	—	—	131.5	131.5	286.5		—	—	14.6
500 PPB	1260 SID	10/29	5	91	5	25.13	113	30.61	71	32.20	45.5	—	—	229.5	229.5	—	—	—	—	
	MIX A 1254	10/29	6	92	5	6.44	41.5	NOT INT.	27	16.55	126 (93)	—	—	161.5	161.5	249.2	—	—	—	.31
250 PPB	1254 SID	10/29	1	87	5	6.33	41	8.77	28	16.79	93	—		162	162		—			
	MIX B 1260	10/30	15	93	5	23.73	89	28.85	56	30.36	33	—	—	178	178	[illegible]				16.5
	MIX B 1254	10/30	15	93	5	6.17	31	7.23	34	10.41	88	—	—	152	152	[illegible]				[illegible]
250 PPB	1254 SID	10/29	6	92	5															
	MIX D 1254	10/30	15	93	5	6.33	42	7.23	34	10.28	59.7 165	—	—	121.7	121.9	132.7	—		116.1	15.4%
	MIX B 1260	10/30	15	93	5	23.73	89	28.85	56	30.36	33	—	—	178	175	317.5	—	—	[illegible]	16.5%

checked [illegible]

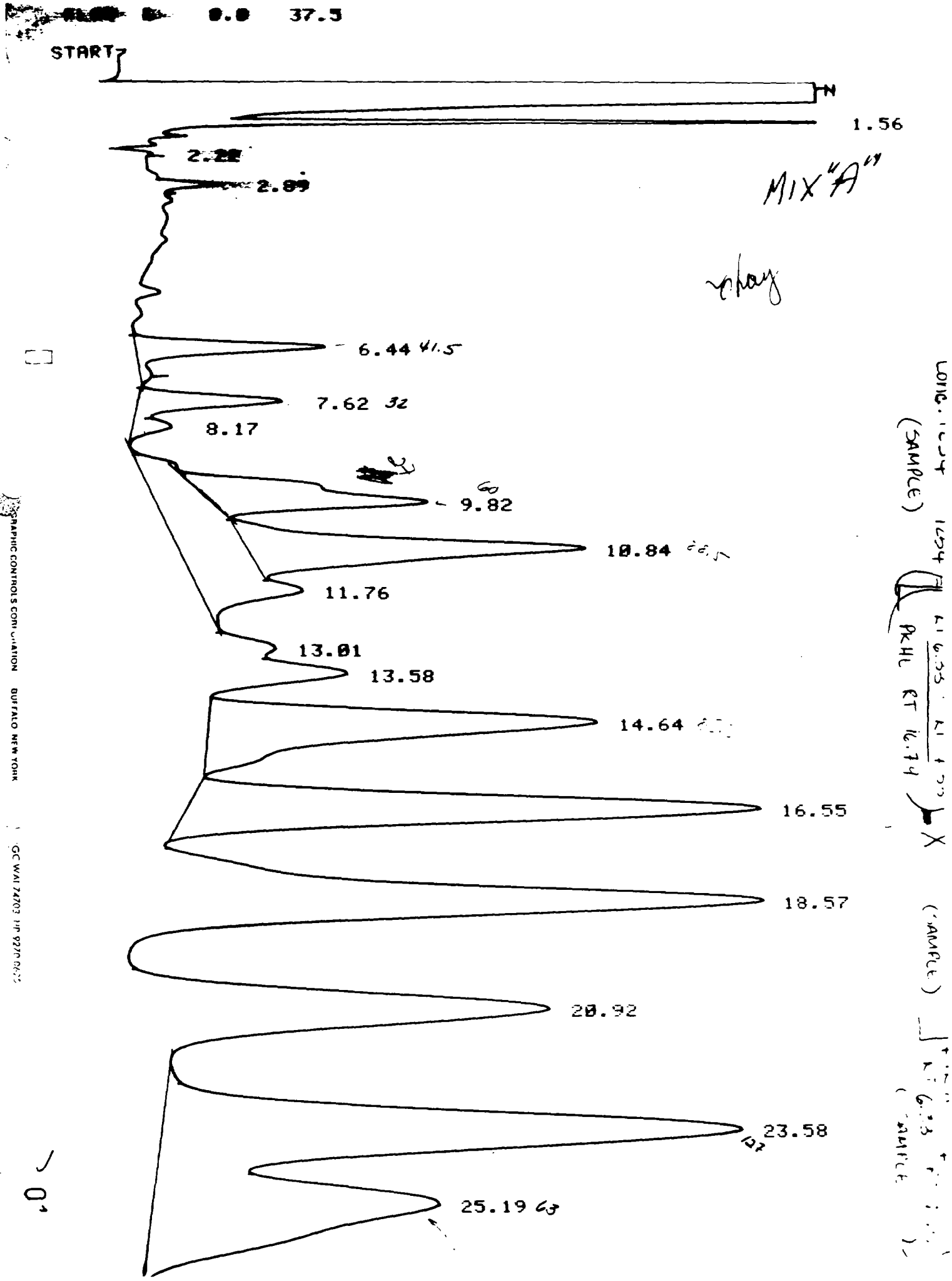
MIX A = 250 PPB Aroclor 1260 / 250 PPB Aroclor 1254

For 1254 Ratio of pks 6.33 + 8.77 / 16.79 = $\frac{41.5 + 27}{93}$ = .74

For 1260 Only unique peaks used.

MIX B = 333 PPB Aroclor 1260 / 167 PPB Aroclor 1254

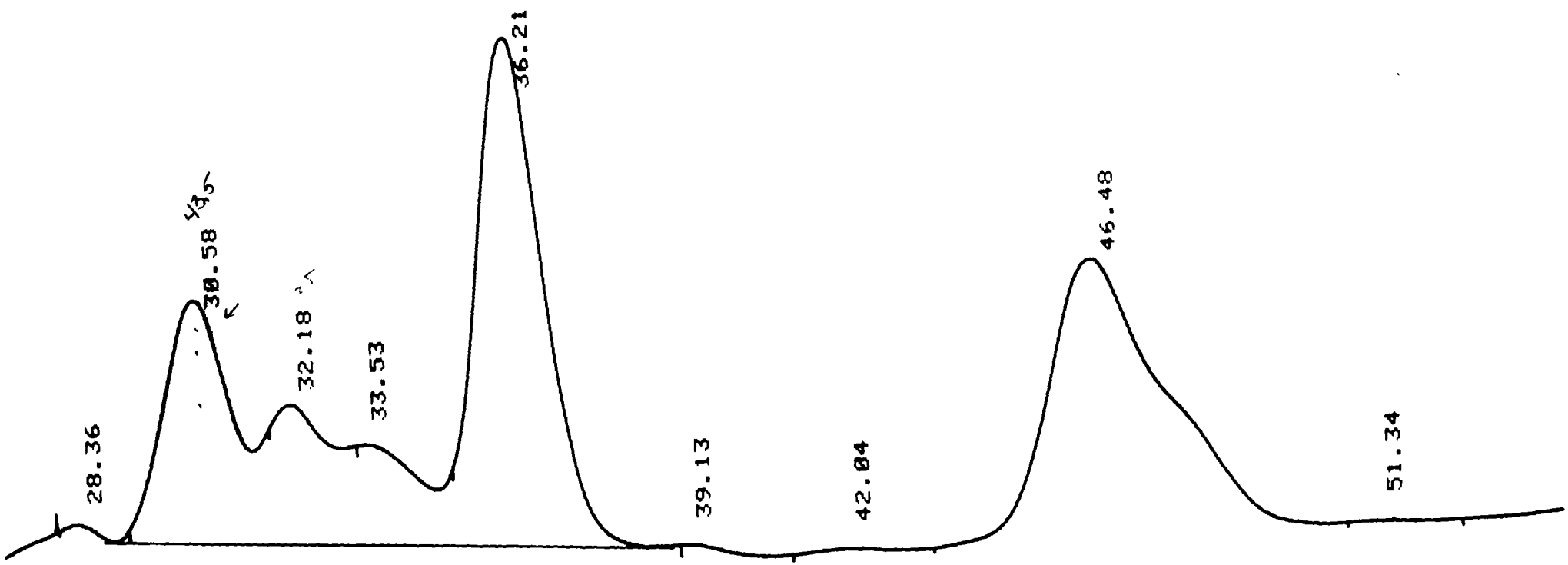
$$\frac{6.33 + 7.23}{10.73} = \frac{42 + 20}{56} = 1.11 \cdot 1/x \quad .4$$



GRAPHIC CONTROLS CORPORATION BUFFALO NEW YORK
GC WAI 74703 HP 9270 0422

X CONCENTRATION STD

PK HTS STANDARD
RT's 6.33 + 7.55 + 16.79

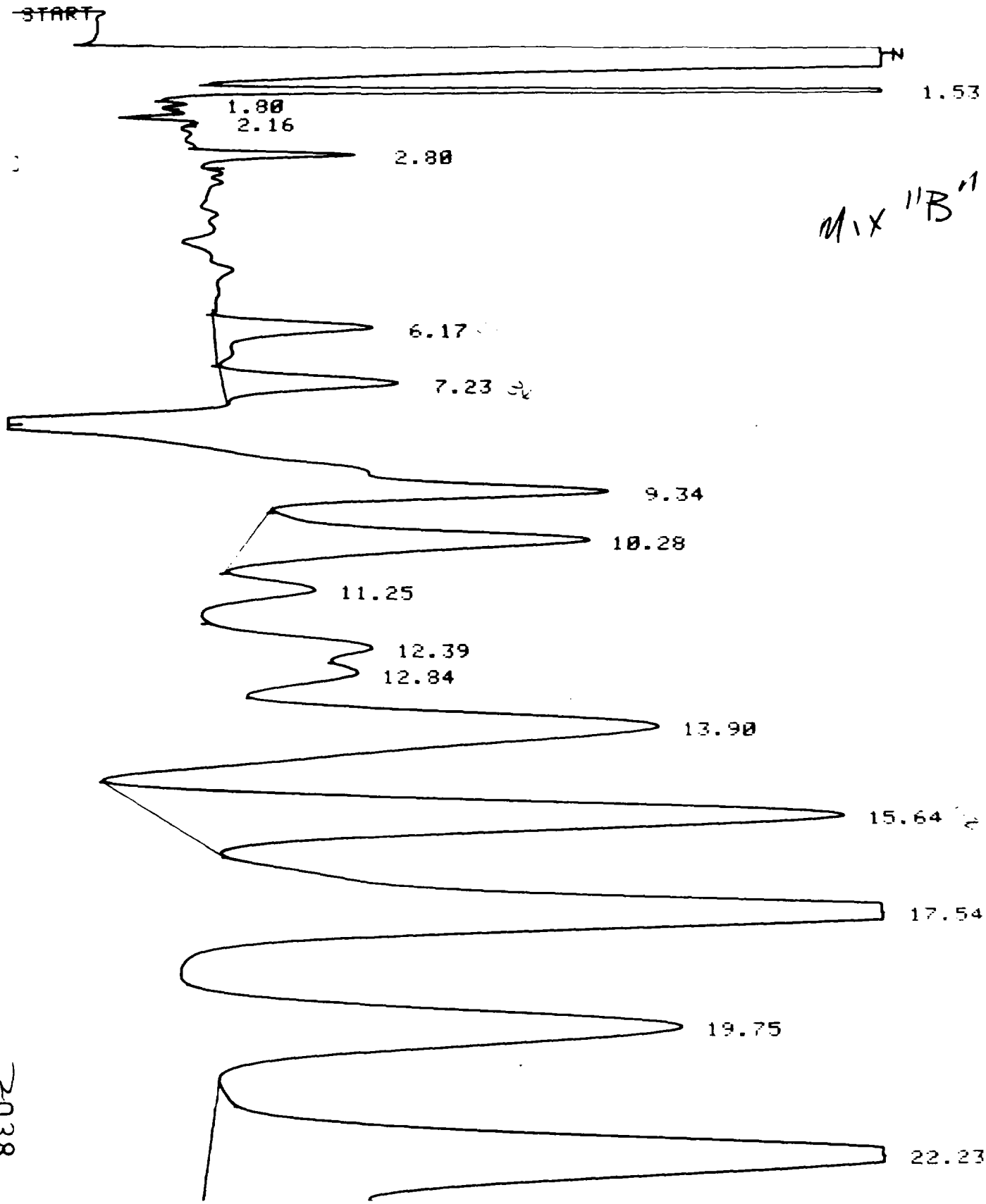


> 01.F

GRAPHIC CONTROLS CORPORATION BUFFALO NEW YORK

AUX TEMP 400 250 250

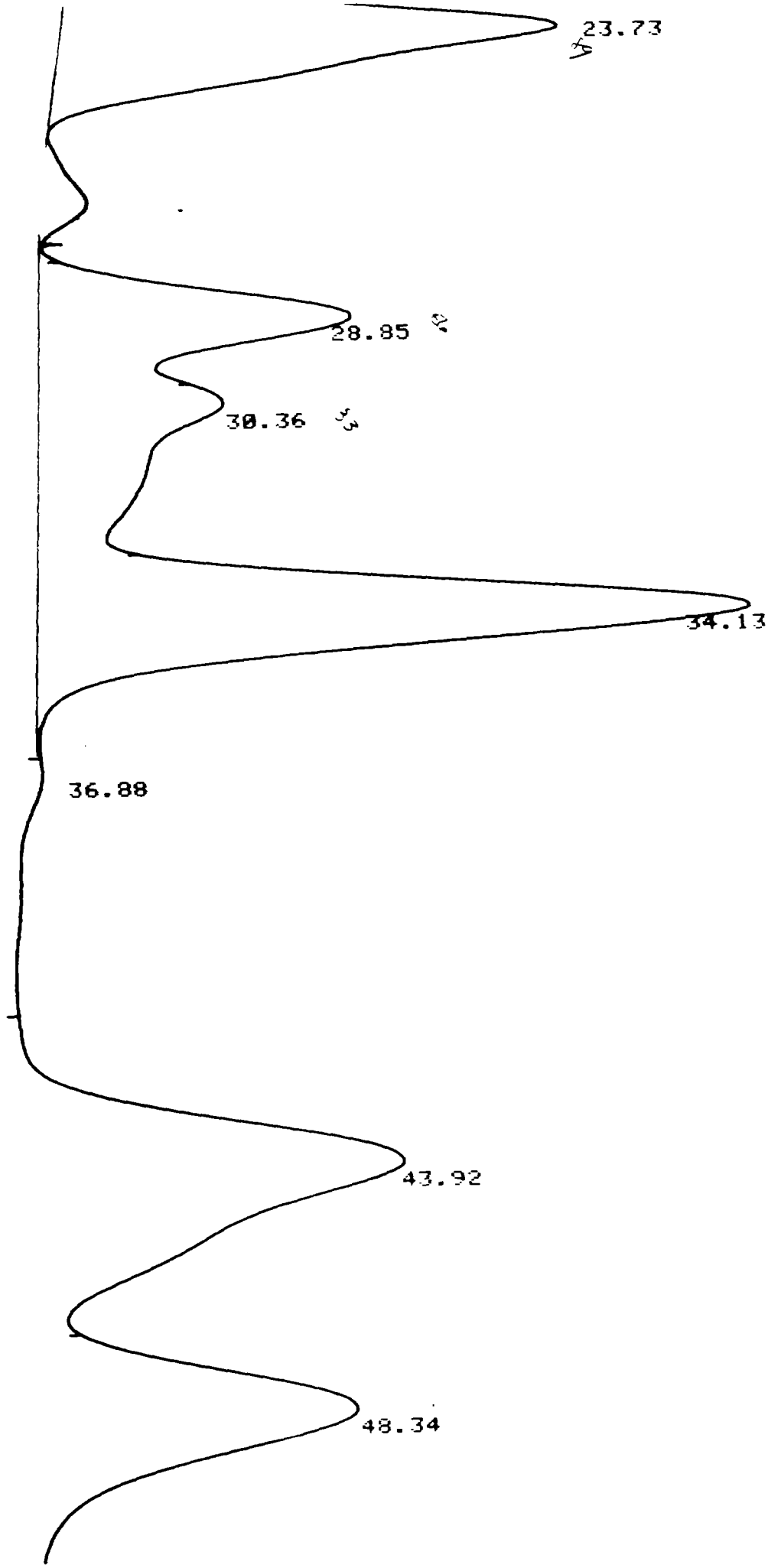
CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 5
AUX SGNL +B
SLP SENS 0.50
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 37.6



MIX "B"

GRAPHIC CONTROLS CORPORATION BUFFALO NEW YORK

2038



GRAPHIC CONTROLS CORPORATION BUFFALO NEW YORK

039

HP RUN # 15 OCT/30/85 TIME 08:40:18

ID:111061 BOTTLE 93

AREA %

RT	AREA	AREA %
0.73	9330000	74.823
7.23	73540	0.590
9.34	181900	1.459
10.28	160000	1.283
11.25	76420	0.613
12.39	97800	0.784
12.84	76020	0.610
13.90	221600	1.777
15.64	207400	1.663
17.54	317500	2.546
19.75	210400	1.687
22.23	295400	2.369
23.73	250700	2.011
28.85	104900	0.841
30.36	111800	0.897
34.13	285300	2.288
43.92	258900	2.076
48.34	209800	1.683

DIL FACTOR: 1.0000 E+ 0

ATTN 2↑ 5

TEMP1 400 210 210
TIME1 55.00
INJ TEMP 400 250 250
FID TEMP 400 250 250
TCD TEMP 400 250 250
AUX TEMP 400 250 250

CHT SPD 1.00
ZERO 10.0
ATTN 2↑ 5
AUX SGNL +8
SLP SENS 0.50
AREA REJ 50000
FLOW A 0.0 0.0
FLOW B 0.0 37.5

STOP

040