PRELIMINARY ASSESSMENT/SITE INSPECTION
FOR THE
KUHLMAN DIECASTING COMPANY
STANLEY, KANSAS

October 5, 1995

Prepared For:

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION VII SITE ASSESSMENT AND RESPONSE SUPPORT SECTION

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1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986, the U.S. Environmental Protection Agency (EPA), Region VII Site Assessment and Response Support (SARS) section tasked the Ecology and Environment, Inc., (E & E) Technical Assistance Team (TAT) to conduct an integrated site assessment (ISA) of the Kuhlman Diecasting Company (KDC) site in Stanley, Kansas. Integrated site assessments are conducted under the auspices of EPA's Superfund Accelerated Cleanup Model (SACM) and result in the combination of the site assessment activities of the Remedial/Site Assessment and Removal Programs. The work was conducted under Technical Direction Document (TDD) T07-9412-506A.

The objectives of the ISA were to collect information concerning conditions at the Kuhlman Diecasting site sufficient to assess the threat posed to human health and the environment and to determine the need for additional investigation under CERCLA or other authority, and to support site evaluation using the Hazard Ranking System (HRS) for proposal to the National Priorities List (NPL). The ISA included reviewing previous information, sampling environmental media to test preliminary assessment (PA) hypotheses and to evaluate and document HRS factors, collecting additional non-sampling information, and investigating the potential for additional removals, if warranted. Information obtained during the ISA was incorporated into the site inspection (SI) narratives and score sheets.

2.0 SITE DESCRIPTION AND HISTORY

2.1 SITE LOCATION

Kuhlman Diecasting Company (KDC) is located at 164th Street and Mission Road, 2.4 miles southeast of Stanley, in Johnson County, Kansas (see Figure 2-1). The site is located in a mixed rural residential and agricultural area. The geographic coordinates of the site reference point are 38°49'52.4"N latitude and 94°37'59.2"W longitude (References 1 and 2). The site is within Section 16 of Township 14S., Range 25E. To reach the site from Kansas City, Kansas: travel south on Interstate Highway I-35 to Highway 169; go south on Highway 169 to the 151st Street exit; turn left on 151st Street and travel east approximately 2 miles to Mission Road; turn right on Mission Road and travel south approximately 1.5 miles to an access gravel road on the right hand side. This gravel road leads to the property.

2.2 SITE DESCRIPTION

KDC is a defunct electroplating facility. The site covers approximately 39 acres and is bounded on the west and south by the Blue River, by farmland to the north, and Mission Road to the east. A small residential area of approximately six residences is located approximately 200 feet northeast of the site. The site is situated within a meander belt of the Blue River and consists of the following: a 130,000-square-foot, single-story, concrete-block building; two process water storage basins; two wastewater evaporation lagoons; three capped lagoons; and a pond (Reference 3). The site is surrounded by an agricultural style levee, and a Missouri Pacific Railroad line bisects the site in a north-south direction (see Figure 2-2) (Reference 8).

2.3 OPERATIONAL HISTORY AND WASTE CHARACTERISTICS

KDC began electroplating operations at the site in 1962, after the property had previously been used as a terminal facility by an oil refiner. The KDC has engaged in manufacturing of zinc diecastings for a variety of commercial and industrial customers, including automotive, small appliances, and telecommunications. The Kuhlman operations also included buffing and polishing of aluminum diecastings. The Kuhlman operations consisted of an electroplating process that used chromium, nickel, and copper plating on the zinc diecasting. On special orders, diecastings were painted rather than electroplated. Prior to 1985, KDC also plated plastic diecastings, and prior to 1987 KDC plated aluminum diecastings. All painting operations at Kuhlman ceased in June 1990, with all painting operations subsequently subcontracted out. On November 30, 1990, Kuhlman ceased all

operations and filed for bankruptcy. Wastewater was, however, still being treated in 1991 as part of the closing of the electroplating operations (Reference 8).

Process wastewater generated in association with washing and rinsing phases of the electroplating operation at KDC was processed through a wastewater treatment system prior to discharge into the Blue River under a National Pollutant Discharge Elimination System (NPDES) permit (No. I-M026-P001). The wastewater treatment system was designed to oxidize cyanide from the copper-plating operation into carbon dioxide and nitrogen through the addition of chlorine. Hexavalent chromium was reduced to trivalent chromium through the introduction of sulfide. Lime and polymers were added to flocculate and precipitate the suspended solids. As a result of the treatment process, particulates settled out of solution and the resulting sludge was pumped from a sedimentation tank into a filter press for dewatering (Reference 8).

Prior to obtaining the NPDES permit in 1973, Kuhlman discharged its effluent from the wastewater treatment system to two former unlined surface impoundments, located along the southern portion of the property, prior to discharge to the Blue River; and disposed of wastewater treatment sludge in a former unlined surface impoundment (storage pond) located in the northwest corner of the property. The wastewater treatment sludge was subsequently processed through the filter press and the dewatered filter cake was placed in a gondola for temporary storage as hazardous waste. The waste was periodically transported as a hazardous waste to the Peoria Disposal Company (EPA ID No. ILD 00-0-805-812) in Peoria, Illinois (Reference 8).

Previous Investigations

In 1972, the Kansas Department of Health and Environment (KDHE) ordered the facility's owner to upgrade the wastewater treatment facilities on site. An NPDES permit was issued for a new wastewater treatment system in 1973. In 1976, KDHE again ordered the facility's owner to upgrade the wastewater treatment system for compliance with the NPDES permit (References 3, 4, 5, 6, and 7).

In 1982, KDHE determined during a Resource Conservation and Recovery Act (RCRA) compliance inspection that hazardous wastes were being improperly stored at the site. Another RCRA inspection in 1986 led to documentation of illegal dumping of paint wastes

and solvents on site. EPA imposed a RCRA Administrative Penalty on the owner for those violations (References 3, 4, 5, 6, and 7).

In November 1990, KDC filed Chapter 11 bankruptcy, with its owner citing an ongoing economic recession as the cause. In March 1991, the Congress Financial Corporation in Chicago, Illinois, a secured creditor with first mortgage rights on the facility at Stanley, Kansas, initiated an auction of the property's equipment and some inventory (References 3, 4, 5, 6, and 7).

On April 18, 1991, individuals who had purchased inventory and equipment at the site ignited an unknown substance with sparks from a cutting torch, as they cut up a tank purchased as scrap salvage. The local HazMat team and fire department, KDHE, and the Johnson County Department of Environmental Control (JCDEC) responded to the fire. The TAT, under direction of the EPA Region VII Emergency Planning and Response (EP&R) Branch, also responded to the incident. A followup inspection of the site by EPA and TAT personnel on April 23, 1991, revealed hundreds of drums and vats containing electroplating wastes. Samples of liquid and sludge collected from some of the drums and from the floor in the plating area showed the contents contained cyanide and metals (References 4, 5, 6, and 7).

On July 15, 1991, an Action Memorandum was signed for a removal and stabilization of the site. A complete removal assessment was conducted by TAT, beginning in late June 1991. During this assessment, the TAT categorized hazardous wastes on site in several waste streams, including waste paints, waste oil, flammable solvents, non-flammable organics, corrosive inorganics, non-corrosive inorganics, and cyanides (References 3 and 5).

Phase I removal activities began on July 22, 1991, and concluded on June 1, 1992. In addition to more than 1,000 drums and other containers holding electroplating chemicals and wastes, approximately 284,000 gallons of wastewater contaminated with cyanide and metals at levels above the NPDES discharge limits for the facility's permit were at the site. Wastes on-site were analyzed and the concentrations detected were as high as 9,540,000 μg/L for chromium; 653,000 μg/L for hexavalent chromium; 28,000,000 μg/L for copper; 55,000,000 μg/L for nickel; 171,000 μg/L for lead; 2,690,000 μg/L for zinc; and 20,500 μg/L for cyanide. During the Phase I removal, over 1 million gallons of waste water contaminated with metals and cyanide, including nearly 900,000 gallons that exceeded

allowable discharge levels before treatment, were treated on site. This included bulking and treating the contents of approximately 900 drums and containers. Wastes exhibiting high metal concentrations or which, for other reasons, could not be treated on site, were transported off site to recycling and/or disposal facilities. All special waste (e.g., trash, debris, dust from the heating/ventilation/air conditioning system, etc.) was sent under a special permit to the Johnson County landfill. A complete report detailing Phase I removal activities was prepared by the TAT and submitted to EPA under TDD: T07-9210-031 (References 4, 5, 6, and 7).

Following the completion of the Phase I removal action, TAT conducted a Phase II removal assessment of the site over several time periods from March 31, 1992, through July 17, 1992, to assist EPA in determining whether further removal activity would be required at the site. During the assessment, multimedia samples of surface and subsurface soils, dust and concrete dust inside the building, sediments in lagoons, and ground water from on-site monitoring wells were collected to define the extent of contamination. A complete report detailing site activities and sample results was prepared by the TAT and submitted to EPA, under TDD: T07-9107-035D (Reference 5). Based on analytical results of that assessment, further characterization of the site was conducted by the TAT, under TDD: T07-9301-025 and TDD: T07-9403-030 (References 6 and 7).

The Phase II sampling included the collection of interior dust samples from the office carpets, concrete dust samples from the building floors and walls, subsurface soil samples from the capped lagoons, surface soil samples from the site, and ground water samples from 22 monitoring wells on site (Reference 5). Analytical results of samples collected during the Phase II site assessment indicated elevated concentrations of metals in several media at the site, which are discussed in sections 3 and 4.

2.4 INTEGRATED SITE ASSESSMENT ACTIVITIES

On April 6, 1995, TAT traveled to the Kuhlman Diecasting site and collected five surface water samples (including a duplicate and a field blank) and four sediment samples (including a duplicate) from the Blue River at upstream and downstream locations. The samples were analyzed for metals. A sample summary is presented in Table 2-1. Figure 5-2 illustrates the sample locations. Samples were hand-delivered from the field to the Region VII EPA Laboratory, in Kansas City, Kansas, on April 6, 1995. The activity number for the

April 1995 sampling event is RG1GK. Analytical results of this sampling event will be discussed in Section 5 and are presented in tables 5-1 and 5-2.

Table 2-1

ISA SAMPLE SUMMARY
APRIL 1995
KUHLMAN DIECASTING COMPANY
ACTIVITY NO. RG1GK-

Sample Number	Date Collected	Matrix	Analyzed	Location
001	4-6-95	Surface Water	Metals	Background location approximately 500 feet north (upstream) of discharge pipe.
002	4-6-95	Surface Water	Metals	Collected at WWTP Kuhlman's discharge pipe.
002D	4-6-95	Surface Water	Metals	Duplicate of sample 002.
003	4-6-95	Surface Water	Metals	Collected approximately 500 feet south (downstream) of Kuhlman's discharge pipe.
004	4-6-95	Surface Water	Metals	Field blank.
005	---	---	---	Not collected.
006	4-6-95	Sediment	Metals	Background location approximately 500 feet north (upstream) of Kuhlman's discharge pipe.
007	4-6-95	Sediment	Metals	Collected at WWTP Kuhlman's discharge pipe.
007D	4-6-95	Sediment	Metals	Duplicate of sample 007.
008	4-6-95	Sediment	Metals	Collected approximately 500 feet south (downstream) of Kuhlman's discharge pipe.

3.0 WASTE/SOURCE SAMPLING

3.1 ANALYTICAL RESULTS

During the Phase II site assessment activities, surface soil samples were collected from the 39-acre site. These samples were screened for target metals using the x-ray fluorescence (XRF) spectrometer and ten percent of the samples were submitted to the EPA Region VII Laboratory for confirmation analysis, to meet EPA's established quality assurance level 2 (QA2). In addition, subsurface soil samples were collected from areas of suspected contamination on site (e.g., capped lagoons, stained areas, loading dock, etc.) and were screened for target metals. Ten percent were submitted for laboratory confirmation analysis (Reference 3). Interior dust and concrete dust samples were collected from the carpet, floors, and walls of the on-site building (References 5, 6, and 7). The results of the sample analyses are discussed below:

- **Interior Dust Samples.** Two dust samples, collected from the office carpets, indicated elevated metal concentrations (2,970 milligrams per kilogram (mg/kg) chromium; 2,520 mg/kg copper; 3,880 mg/kg nickel; 1,120 mg/kg lead; and 235,000 mg/kg zinc).

- **Concrete Dust Samples.** Concrete dust samples indicated elevated metal concentrations in building floors and walls (17,800 mg/kg chromium; 18,200 mg/kg copper; 85,400 mg/kg nickel; 3,550 mg/kg lead; and 6,890 mg/kg zinc).

- **Subsurface Soil Samples Collected from Capped Lagoons.** Subsurface soil samples were collected from three unlined, on-site lagoons. #3 was the only lagoon from which samples indicated elevated metal concentrations at 5-to-7- foot depth (5,980 mg/kg chromium; 3,090 mg/kg copper; and 7,990 mg/kg nickel), and lesser concentrations at 7-to-8-foot depth (2,250 mg/kg chromium; 1,230 mg/kg copper; and 3,130 mg/kg nickel). Chromium exceeded the Reference Dose Screening Concentration (RfD) of 2,900 mg/kg, copper exceeded the EPA Region III Risk-Based Concentration (RBC) of 2,900 mg/kg, and Nickel exceeded the RBC of 1,600 mg/kg in the subsurface samples.

- **Sediment Samples Collected from Lagoons.** Nine sediment samples were collected from on-site lagoons, basins, and a pond on April 27, 1992. Analytical results showed the north process water storage basin contained the following metals: chromium, copper, nickel, lead, zinc, and cyanide. TAT subsequently resampled sediment in the north process water storage basin for cyanide analysis, as tasked by EPA. Analytical results of that sampling event indicated cyanide was detected in some samples at 0.2 mg/L, which is slightly above the sample quantitation limit of 0.15 mg/L [Reference 7].

- **Surface Soil Samples.** Surface soils at this 39-acre site were collected, screened, and analyzed for total metals to delineate the extent of contamination. Nickel and zinc were found to exceed the site-specific action levels established for the site in six 5,000-square-foot sections. Zinc exceeded its proposed action level of 5,500 mg/kg in five sections, with the highest 95% upper confidence limit (UCL) concentration of 45,222 mg/kg, and it exceeded the RBC of 23,000 mg/kg. Nickel exceeded its proposed action level of 1,500 mg/kg in two sections, with the highest 95% UCL concentration of 3,453 mg/kg, and it exceeded the RBC of 1,600 mg/kg.

3.2 CONCLUSIONS

Based on the previous investigation conducted at the site, surface soil samples were found to contain high levels of nickel and zinc, which exceeded the site-specific proposed action levels of 1,500 and 5,500 mg/kg, respectively. Subsurface soil samples were collected from the 5- to-7-foot interval and the 7-to-8-foot interval beneath the northwest capped lagoons (capped Lagoon #3) and were found to contain high levels of chromium, copper, and nickel. Chromium exceeded the RfD of 2,900 mg/kg in the subsurface soil samples, and copper and nickel exceeded the RBC's of 2,900 and 1,600 mg/kg, respectively, in the subsurface soil samples. Nickel also exceeded the RBC of 1,600 mg/kg in the surface soil samples and zinc exceeded the RBC of 23,000 mg/kg in the surface soil samples. These are the only health-based benchmarks that were exceeded in soil samples. These sample results have identified two sources of metals contamination on site, the capped lagoon #3 and contaminated surface soil. The interior dust and concrete dust samples collected from the building provide evidence of contaminated airborne particulates inside the building and/or spillage of hazardous wastes during its electroplating operational period.

4.0 GROUND WATER PATHWAY

4.1 HYDROGEOLOGIC SETTING

The site is located in eastern Johnson County in northeastern Kansas. Johnson County lies partly in the Osage Cuestas, a portion of the Osage Plains physiographic province. Most of Johnson County consists of gently rolling uplands with greater relief along streams (Reference 8).

Sedimentary rocks in northeast Kansas range in type from Late Pennsylvanian to Late Cambrian age. In the vicinity of the site, they have an aggregate thickness of approximately 1,700 feet. Structurally, the site lies within the Forest City basin. Shale and carbonate are the predominant lithologies of Paleozoic rocks in the Forest City basin, although sandstone composes the bulk of Late Cambrian and Early Ordovician-age formations. Middle Ordovician through Mississippian-age formations are typically thick-bedded limestone and dolomite interbedded with thick shale. The overlying Middle Pennsylvanian-age rocks are predominantly shale and channel sands with minor amounts of carbonate. The Upper Pennsylvanian-age rocks that underlie the site are cyclothemic shale and limestone formations varying in thickness from several inches to several tens of feet (Reference 8).

Eastern Johnson County is underlain by the Upper Pennsylvanian-age Kansas City group. Within the Kansas City group, thick limestone and thin shale of the Bronson subgroup underlie the thick shale and thin limestone of the Linn Subgroup. The Bronson subgroup comprises the following (listed in ascending order): Hertha limestone; Ladore shale; Swope limestone; Galesburg shale; and Dennis limestone (Reference 8).

The Cherryvale shale is the basal formation of the Linn subgroup. The overlying formations of the subgroup are the Druin limestone, Chanute shale, and Iola limestone. The Zarah subgroup comprises the Wyandotte limestone and the Bonner Springs shale (Reference 8).

Unconsolidated sediments in the Blue River Valley are Wisconsinan to recent in type. The thickness of the alluvium varies from approximately 30 feet in the northern and central portions of the site to approximately 20 feet in the southern portion of the site. These unconsolidated sediments have been divided into a clayey gravel unit overlain by a silty clay unit. The clayey gravel unit ranges from 2.5 feet to 5.5 feet thick in the northern and

southern portions of the site and 0 to 1.5 feet thick in the central portion of the site. Greater thickness of the unit and lower elevations of the bedrock surface in the northern portion of the site suggest that this may have been the location of a former channel. The unit includes poorly graded, clayey gravel and silty and sandy low plastic clay with minor amounts of medium plastic, silty clay, and poorly graded clayey sand. Gravel generally consists of shale fragments (Reference 8).

Overlying the clayey gravel unit is the silty clay unit. The unit consists primarily of low plastic silty clay with minor quantities of fine to medium sand, and occasional gravel and wood fragments. Firm to stiff, grayish-brown, low plastic silty and sandy clay fill with minor gravel, wood, and concrete fragments covers most of the northern and central portions of the site. Thickness varies from 2 to 9 feet (Reference 8).

Topsoil at the site, as classified in the Johnson County Soil Survey (USDA 1979), belongs to the Kennebec and Chase series. Kennebec silt loam covers the southern portion of the site. Typical Kennebec soil is very dark grayish-brown becoming very dark gray with depth, slightly hard, friable, with weak to moderate fine granular structure. Kennebec soils are deep, moderately well drained, moderately permeable and level (Reference 8). A generalized geologic column is provided in Figure 4-1.

4.2 GROUND WATER TARGETS

No drinking water wells were identified within a 4-mile radius of the site, but there may be wells used for irrigation or livestock watering. It was documented that the Kansas residents within a 4-mile radius of the site obtain drinking water from either the Johnson County Water District #1 or Olathe Water District. Johnson County Water District #1 receives water from a Missouri River intake, a Kansas River intake, and a well field in the Kansas River alluvium in Wyandotte County. The well field is outside of the 4-mile radius study area [Reference 9]. Olathe receives its water from Lake Olathe and from a well field in Desoto, Kansas, which also is outside of the 4-mile radius study area [Reference 10]. Most private wells in Johnson County are used for irrigation and livestock watering. All residents who currently build new homes in Johnson County receive drinking water from Johnson County Water District #1 [Reference 9].

The Missouri residents located within the study area receive their drinking water from the Kansas City Public Water Supply [Reference 13].

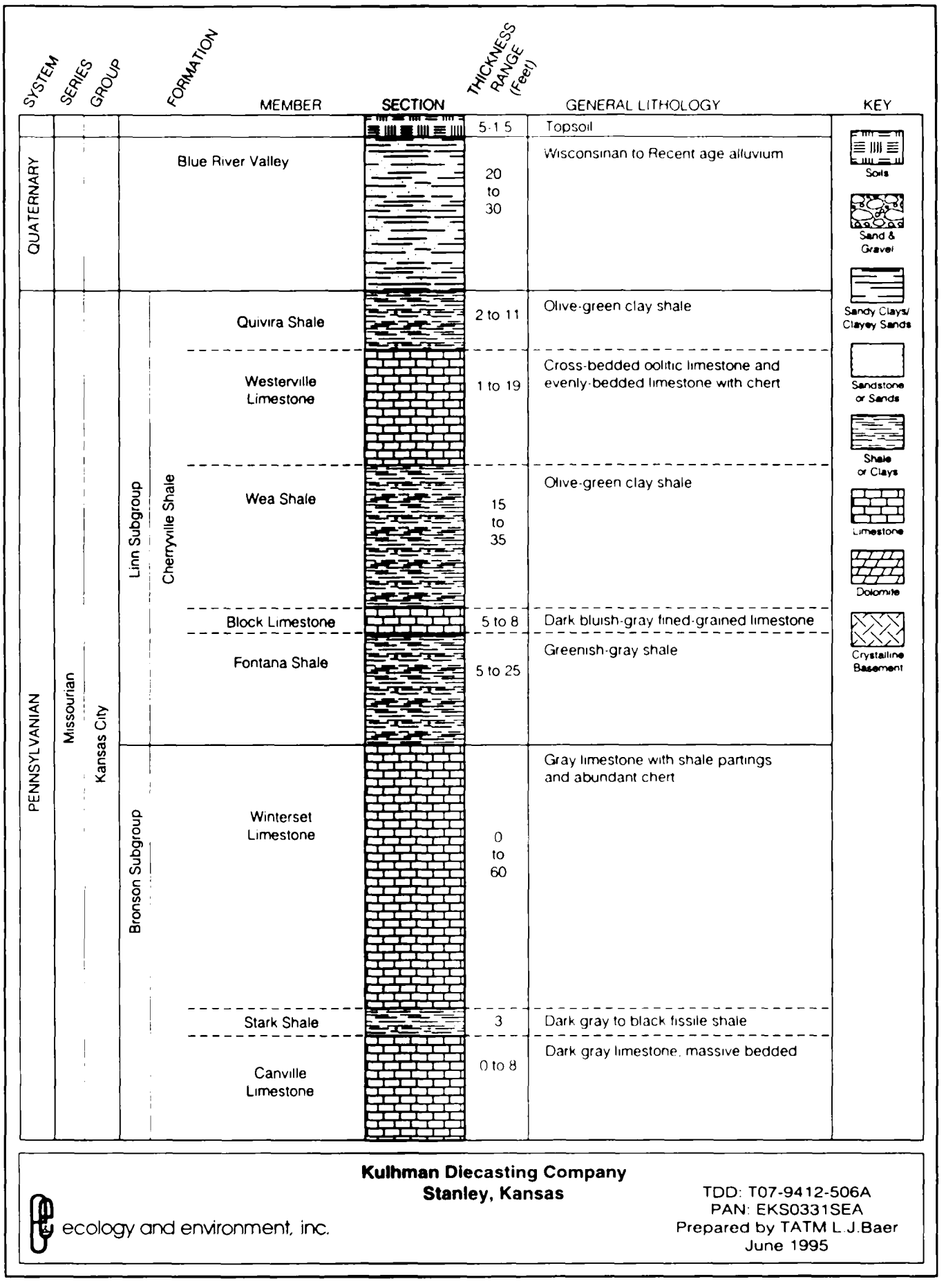
One private well was previously identified near the site, but it was found to have been abandoned [Reference 12]. No private drinking water wells could be identified within a 4-mile radius of the site [Reference 16]. No well head protection areas have been established within a 4-mile radius of the site [Reference 11].

4.3 ANALYTICAL RESULTS

Ground water samples were collected from 22 monitoring wells on site. Samples were analyzed for cyanide, total petroleum hydrocarbons, and total metals. Analytical results did not detect cyanide in any of the sampled wells at the laboratory detection limit of 0.004 milligrams per liter (mg/L). Total petroleum hydrocarbon analysis showed either nondetect or trace levels (less than 7 mg/L) in all well samples. Eight monitoring well samples indicated metal concentrations above the maximum contaminant levels (MCLs) established for arsenic, cadmium, copper, nickel, and lead. The highest metal concentrations detected were 367 mg/L arsenic; 14.5 mg/L cadmium; 115 mg/L chromium; 117 mg/L copper; 113 mg/L nickel; and 123 mg/L lead (References 5, 6, and 7).

4.4 CONCLUSIONS

Twenty-two on-site monitoring wells have been sampled and analyzed for metals. The analytical results show on-site ground water to be contaminated with arsenic, cadmium, copper, nickel, and lead. Concentrations of these metals exceeded the established MCLs.



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Stanley, Kansas

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Figure 4-1: GENERAL GEOLOGIC COLUMN

5.0 SURFACE WATER PATHWAY

5.1 HYDROLOGIC SETTING

The KDC site is located within a meander of the upper reach of the Blue River, a primary tributary of the Missouri River. Although the site is in the Blue River flood plain, it is protected by an agricultural style levee. The Blue River flows to the south and is adjacent to KDC's wastewater treatment system. The river then turns and flows west along the southern border of the property. The portion of the Blue River near the site is used for recreational fishing. Directly opposite the site is the mouth of the Camp Branch, a major tributary of the Blue River (Reference 8).

Topography on the site is generally flat, with the exception of a flood control dike, and was constructed to an approximate elevation of 897 feet National Geodetic Vertical Datum (NGVD), which is equivalent to mean sea level (MSL). The flood control dike is situated along portions of the western and northern site boundaries and separates the central portions from southern portions of the site [Reference 8]. The southern portion of the site is considered part of the Blue River flood plain. Within the flood control dike, drainage is directed toward the south to a culvert leading to the southern portions of the site. A 5- to 10-foot high railroad bed runs north-south dividing the Kuhlman property. The probable point of entry (PPE) into the Blue River is about 100 feet from any on-site source. The surface water migration pathway is shown on Figure 5-1.

5.2 SURFACE WATER TARGETS

No drinking water intakes are known to exist along the blue River 15 miles downstream of the site [Reference 13]. No sensitive environments have been identified within the 15-mile downstream distance limit (Reference 14). The Blue River is, however, used for recreational fishing near the site.

5.3 SURFACE WATER/SEDIMENT ANALYTICAL RESULTS

Five surface water samples (including a duplicate and a field blank) were collected during the ISA activities from the Blue River at locations upstream and downstream of the Kuhlman discharge pipe and at the discharge pipe area. See Figure 5-2 for sample locations. The samples were analyzed for metals. Analytical results of the surface water samples are provided in Table 5-1. Aluminum, barium, manganese, titanium, vanadium, and zinc were the only metals positively identified (concentrations were above the sample quantitation

limits). However, only titanium and vanadium concentrations in sample 002 (collected from the discharge pipe PPE) significantly exceeded the background sample concentrations or background detection limits. Titanium and vanadium have not; however, been identified in any waste/source samples collected at the site and have not been attributed to electroplating operations conducted at the Kuhlman site (see Table 5-1). Concentrations of titanium and vanadium did not exceed any health-based benchmarks or action levels established by EPA in on-site soils.

Four sediment samples (including a duplicate sample) were collected from the Blue River at the same locations as the surface water samples (see Table 2-1). These samples also were analyzed for metals. Analytical results of the sediment samples are provided in Table 5-2. The following metals were found above the sample quantitation limits: aluminum, arsenic, barium, cadmium, chromium, cobalt, copper, lead, manganese, nickel, silver, vanadium, and zinc. The highest concentrations of all metals detected (except for aluminum) were found in sample 007 and its duplicate 007D, which were collected at the Kuhlman discharge pipe PPE. The following metals were found to significantly exceed background concentrations and/or background detection limits: arsenic, cadmium, cobalt, lead, manganese, nickel, and silver. These metals also have been identified in on-site soils or were used in the Kuhlman electroplating operations.

5.4 CONCLUSIONS

Although two metals, vanadium and titanium, were found above background detection limits in the surface water samples, they have not been attributed to any sources on site. However, arsenic, cadmium, cobalt, lead, manganese, and nickel were found above background concentrations in sediment samples collected from the Kuhlman discharge pipe PPE, indicating that the discharge pipe at Kuhlman was a source of metals contamination in the Blue River sediments.

Table 5-1

ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES
APRIL 1995
KUHLMAN DIECASTING COMPANY
ACTIVITY NO. RG1GK-

Analyte (in µg/L	Surface Water					Regulatory Levels			
	Background 001	002	002D	003	004F	MCL µg/L	RBC µg/L	CR µg/L	RFD µg/L
Aluminum	537	1,090	526	410	50.7	---	110,000	---	---
Antimony	25.5 U	25.5 U	25.5 U	25.5 U	25.5 U	6	15	---	14
Arsenic	19.2 U	19.2 U	19.2 U	19.2 U	19.2 U	50	11	.02	11
Barium	137	142	139	132	5.84	2,000	2,600	—	2,500
Beryllium	0.995 U	0.995 U	0.995 U	0.995 U	0.995 U	4	.016	.0081	180
Cadmium	3.69 U	3.69 U	3.69 U	3.69 U	3.69 U	5	18	---	18
Chromium	14.2 U	14.2 U	14.2 U	14.2 U	14.2 U	100	---	---	180
Cobalt	5.31 U	5.31 U	5.31 U	5.31 U	5.31 U	---	2,200	---	---
Copper	8.32 U	8.32 U	8.32 U	8.32 U	8.32 U	*1,300	1,400	---	---
Lead	25.1 U	25.1 U	25.1 U	25.1 U	25.1 U	*15	0.0037	---	.0036
Manganese	284	347	289	223	1.53	---	180	---	180
Nickel	11.5 U	11.5 U	11.5 U	11.5 U	11.5 U	100	730	---	700
Silver	7.88 U	7.88 U	7.88 U	7.88 U	7.88 U	---	180	---	180
Titanium	15.2 U	23.9	15.2 U	15.2 U	15.2 U	---	---	---	---
Vanadium	2.51 U	3.30	2.51 U	2.51 U	2.51 U	---	260	---	250
Zinc	79.1	83	79.3	78.6	10.8 U	---	11,000	---	11,000

Key at end of table.

Table 5-1

ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES
APRIL 1995
KUHLMAN DIECASTING COMPANY
ACTIVITY NO. RG1GK-

Key:

µg/L	=	Micrograms per liter.
MCL	=	Maximum Contaminant Level.
RBC	=	Risk-Based Concentrations.
CR	=	Cancer Risk Screening Concentration.
RFD	=	Reference Dose Screening Concentration.
Shaded Area	=	Concentration is above the sample quantitation limit and is positively identified.

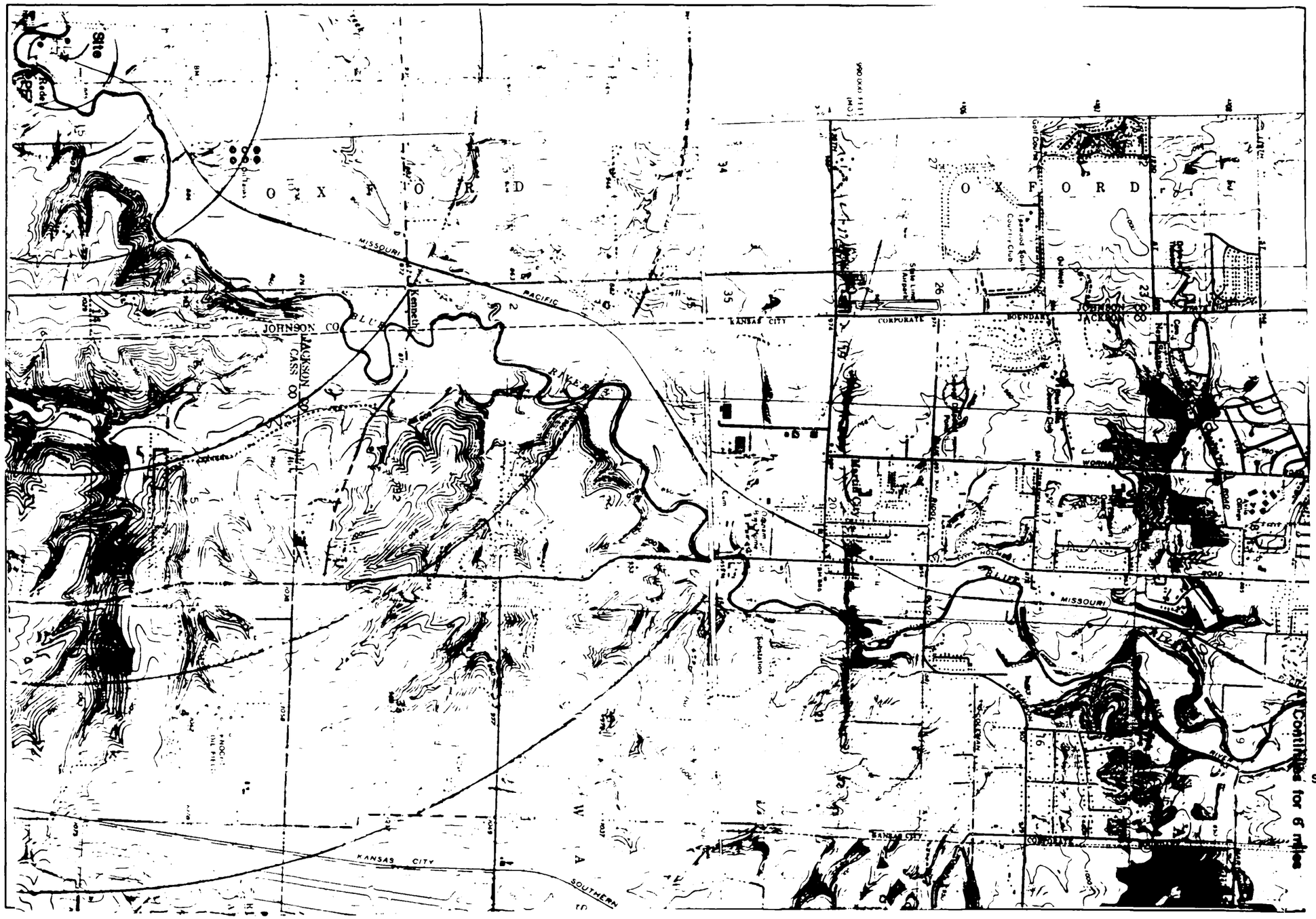
Table 5-2

ANALYTICAL RESULTS FOR SEDIMENT SAMPLES
APRIL 1995
KUHLMAN DIECASTING COMPANY
ACTIVITY NO. RG1GK-

Analyte (in mg/kg)	Background 006	007	007D	008
Aluminum	11,400	9,810	8,380	11,100
Antimony	0.56 U	0.56 U	0.56 U	1.31
Arsenic	0.95 U	10.9	13.0	0.95 U
Barium	146	260	242	161
Beryllium	0.14 U	0.14 U	0.14 U	0.14 U
Cadmium	4.56	14.5	14.4	5.75
Chromium	12.8	13.3	16.1	16.7
Cobalt	6.72	39.7	39.6	10.7
Copper	10.3	15.3	17.5	14.5
Lead	11.7	54.8	46.8	16.8
Manganese	473	7,600	5,870	500
Nickel	14.4	40.5	45.3	21.1
Silver	0.62 U	1.68	1.11	0.62 U
Vanadium	22.9	47.8	49.3	26.3
Zinc	46.2	61.5	64.4	56.1

Key:

mg/kg = Milligrams per kilogram.



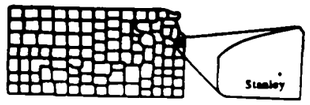
EXPLANATION

PPE — Probable Point of Entry

N

SCALE

0 — 1/2 — 1 mile



Key to Counties — Johnson County

Kulhman Diecasting Company
Stanley, Kansas

TDD: T07-9412-506A
PAN: EKS0331SEA
Prepared by TATM L.J.Baer
June 1995

Source: USGS 7.5 minute Topographic Map; Stilwell, Kans., 1956, photorevised 1975.

ecology and environment, inc.

Figure 5-1: SURFACE WATER PATHWAY

6.0 SOIL EXPOSURE AND AIR PATHWAYS

6.1 PHYSICAL CONDITIONS AND TARGETS

The site is currently abandoned but a fence does not surround the site, making it accessible to the public. A recent visit to the site by the TAT revealed graffiti on the building walls and other evidence of human activities on site. There are six residences located about 200 feet northeast of the site (Reference 2). The population within 1 mile is small, about 116 (Reference 15). The population per household in Johnson County is 2.5 (Reference 15).

The only waste source remaining on site that could contribute to the air pathway via airborne metals-laden particulates is contaminated soil on site. Because these areas are well covered with vegetation and the agricultural levee acts as an natural barrier, the likelihood of the contaminants migrating to the nearby residences is unlikely.

6.2 CONCLUSIONS

Because high levels of metals remain in surface soils and interior dust, the site conditions meet removal criteria set forth in the NCP [40 CFR 300.415 (b)(2)]. Furthermore, the levels of metals exceeded the health-risk proposed action levels established for this site. Although six residences are located within 200 feet of the site, the agricultural levee acts as a barrier, preventing metal-laden, airborne particulates from migrating to those residences.

7.0 SUMMARY AND CONCLUSIONS

In 1962, Kuhlman diecasting Company began an electroplating operation, which consisted of chromium, nickel, and copper plating on zinc diecasting. In some cases, the diecastings were painted rather than electroplated. Wastewater was generated during the washing and rinsing phases of the electroplating operations. Prior to 1973, effluent from the wastewater treatment system was previously discharged to two former unlined surface impoundments, located along the southern portion of the property. In 1973, Kuhlman began discharging the effluent directly into the Blue River under its NPDES permit. In 1990, Kuhlman filed Chapter 11 bankruptcy and ceased all operations; however, wastewater was still being treated in 1991 as part of the closing of the facility.

KDHE has conducted several inspections of the Kuhlman facility during its operations since 1972. Several notices of violation of the NPDES permit and RCRA corrective actions have been issued to the site owner. In 1991, EPA and E & E TAT conducted a removal assessment of the site after a fire incident, which resulted from the cutting of a tank for scrap salvage. The removal assessment revealed hundreds of drums and vats containing electroplating wastes and improper storage of incompatible wastes. Characterization of the on-site wastes indicated several waste streams, including waste paints, waste oil, flammable solvents, non-flammable organics, corrosive inorganics, non-corrosive inorganics, and cyanide. In addition, approximately 284,000 gallons of wastewater contaminated with cyanide and metals at levels above the NPDES discharge limits for the facility's permit were at the site. Because the site conditions warranted a removal action, an Action Memorandum was signed for removal and stabilization of the site in July 1991. During removal activities at the site between July 1991 and June 1992, all hazardous wastes were either treated on site and discharged to the Blue River in compliance with the facility's NPDES permit, or transported off site to RCRA-approved disposal facilities. Special wastes were sent to the Johnson County Landfill.

Following the removal action, TAT collected multi-media environmental samples at the site to define the extent of contamination and to determine residual contamination remaining inside the building. Samples were collected at the KDC site from on-site soils, surface water and sediment, ground water, subsurface soils from the capped lagoons, and from dust on the interior walls and floors of the Kuhlman office building. Three sources of hazardous substances have been identified at the KDC site: contaminated on-site surface

soils, the capped lagoon #3 (or surface impoundment), and the wastewater treatment discharge pipe in the Blue River (which is no longer in service). On-site soil, surface water and sediment in the Blue River, and ground water have been found to be contaminated with metals associated with the Kuhlman diecasting operations.

On-site surface soil samples contained nickel and zinc at concentrations exceeding the proposed action levels established for the site. Subsurface soil samples collected from the northwest lagoon (capped lagoon #3) contained copper, chromium, and nickel above several EPA benchmarks. On-site ground water samples collected from 22 monitoring wells contained arsenic, cadmium, copper, nickel, and lead above the MCLs, and sediment samples collected in the Blue River at the Kuhlman discharge pipe PPE contained arsenic, cadmium, cobalt, lead, nickel, and manganese above background concentrations.

Based on the pathway evaluations, the surface water pathway is the primary pathway of concern because it is used for recreational fishing near the site and because of the detection of several metals in the sediment during the 1995 ISA. Although the ground water and soils are contaminated on site, there are no drinking water targets within a 4-mile radius and the nearby residential population is small.

8.0 REFERENCES

1. U.S. Environmental Protection Agency, June 5, 1995, Latitude and Longitude Calculation Worksheet #2.

2. U.S. Geological Survey, 1956 (photorevised 1970 and 1975), 7.5 Minute Topographic Map of Kansas, Stillwell, Kansas Quadrangle.

3. Ecology and Environment, Inc., June 24, 1992, Quality Assurance Sampling Plan for Kuhlman Diecasting Company Removal Site - Phase II, Stanley, Kansas, (TDD: T07-9107-035C).

4. _____, January 19, 1993, Kuhlman Diecasting Company, Stanley, Kansas, Final Report for Removal Action Phase I (TDD: T07-9210-031).

5. _____, September 25, 1992, Kuhlman Diecasting Company, Stanley, Kansas, Removal Assessment Phase II, (TDD: T07-9107-035D).

6. _____, April 16, 1993, Kuhlman Diecasting Company, Stanley, Kansas, Removal Assessment Phase II (TDD: T07-9301-025).

7. _____, June 13, 1994, Site Assessment: Kuhlman Diecasting Company, Stanley, Kansas, (TDD: T07-9403-030).

8. Gilchrist, John E., January 28, 1991, Ground Water Assessment Plan for Kuhlman Diecasting Company, Stanley, Kansas.

9. Graves, Dan, Manager of Customer Service, Johnson County Water District #1, telephone conversation with Gayle Hubert, Ecology and Environment, March 9,1995.

10. Koger, Joel, Engineer Technician, Olathe Water District, telephone conversation with Gayle Hubert, Ecology and Environment, March 10, 1995.

11. Hipple, Bob, KDHE Wellhead Protection Program, telephone conversation with Gayle Hubert, Ecology and Environment, March 9, 1995.

12. Trease, Fred, Environmental Health Specialist, Johnson County Environmental Department, memorandum to Philip Wittak, Director, Johnson County Environmental Department, October 13, 1994.

13. Reddy, John, Hydraulic Engineer, Kansas City Pollution Control, telephone conversation with Gayle Hubert, Ecology and Environment, March 6, 1995.

14. Mammoliti, Chris, Aquatic Ecologist, State of Kansas Department of Wildlife and Parks, letter to Gayle Hubert, Ecology and Environment, Inc., April 11, 1995.

15. U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, 1990 Census of Population and Housing Unit Counts, Kansas.

16. Geiger, Claude, U.S. Geological Survey, telephone conversation with Gayle Hubert, Ecology and Environment, Inc., May 1, 1995.

ATTACHMENT E

REMOVAL ASSESSMENT ANALYTICAL RESULTS

Professional Service Industries, Inc.
Hall-Kimbrell Division

July 17, 1991

Dermot Kerin
Ecology & Environment
6405 Metcalf Cloverleaf Bldg 3
Overland Park, KS 66202

Re: Analytical Results
#59313072-11035

Dear Mr. Kerin:

Enclosed are the analytical results for the five samples received on July 5, 1991. The samples were analyzed for pH, 23 metals and total cyanide. The mercury did not duplicate or spike well. This is probable due to matrix interference. The spike and duplicate would indicate that sample #NDX 08011 (737284) is closer to 0.06 mg/L. Analytical results are summarized on the following pages.

Samples are scheduled for disposal on July 27, 1991. If you would like additional analysis or would like the samples to be returned to you, please contact us as soon as possible.

If you need more information regarding this data, please do not hesitate to contact me at (913) 865-9434. Thank you for using Professional Service Industries, Inc.

Sincerely,

Darla J Paulsen

Darla J. Paulsen
Inorganic Division Manager

DJP/crk

Encls.

4840 West 15th Street • Lawrence, KS 66049 • Phone: 913/749-2381

Professional Service Industries, Inc.
Hall-Kimbrell Division
ANALYTICAL REPORT

Ecology & Environment
Kuhlman Diecasting Co.
T07-9104-058
EKS0331SBA

59313072-11035

July 17, 1991

CLIENT# (LAB#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX 08008	Cyanide	0.112	0.010	mg/L	335.3
737281	pH	9.61	0.01	UNITS	150.1
	Aluminum	< 0.06	0.06	mg/L	200.7
	Antimony	< 0.04	0.04	mg/L	200.7
	Arsenic	< 0.04	0.04	mg/L	200.7
	Barium	0.018	0.001	mg/L	200.7
	Beryllium	< 0.001	0.001	mg/L	200.7
	Cadmium	< 0.002	0.002	mg/L	200.7
	Calcium	47.05	0.045	mg/L	200.7
	Chromium	2.160	0.002	mg/L	200.7
	Cobalt	< 0.003	0.003	mg/L	200.7
	Copper	0.797	0.004	mg/L	200.7
	Iron	0.2	0.1	mg/L	200.7
	Lead	< 0.03	0.03	mg/L	200.7
	Magnesium	4.79	0.075	mg/L	200.7
	Manganese	0.019	0.001	mg/L	200.7
	Mercury	0.0002	0.0002	mg/L	245.1
	Nickel	1.76	0.007	mg/L	200.7
	Potassium	34.0	0.5	mg/L	200.7
	Selenium	< 0.035	0.035	mg/L	7740
	Silver	< 0.003	0.003	mg/L	200.7
	Sodium	300.5	0.022	mg/L	200.7
	Thallium	< 0.03	0.03	mg/L	7841
	Vanadium	< 0.001	0.001	mg/L	200.7
	Zinc	0.596	0.002	mg/L	200.7

DATA REVIEW AND CERTIFICATION

The information given in this analytical report has been reviewed and complies with the specified methods.

Darla J Paulson 7/17/91

4840 West 15th Street • Lawrence, KS 66049 • Phone: 913/749-2381

CLIENT# (LAB#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX 08009	Cyanide	< 0.010	0.010	mg/L	335.3
737282	pH	7.53	0.01	UNITS	150.1
	Aluminum	0.07	0.06	mg/L	200.7
	Antimony	< 0.04	0.04	mg/L	200.7
	Arsenic	< 0.04	0.04	mg/L	200.7
	Barium	0.124	0.001	mg/L	200.7
	Beryllium	< 0.001	0.001	mg/L	200.7
	Cadmium	< 0.002	0.002	mg/L	200.7
	Calcium	156.3	0.045	mg/L	200.7
	Chromium	0.512	0.002	mg/L	200.7
	Cobalt	0.024	0.003	mg/L	200.7
	Copper	0.675	0.004	mg/L	200.7
	Iron	0.8	0.1	mg/L	200.7
	Lead	0.20	0.03	mg/L	200.7
	Magnesium	17.3	0.075	mg/L	200.7
	Manganese	0.468	0.001	mg/L	200.7
	Mercury	0.0005	0.0002	mg/L	245.1
	Nickel	27.97	0.007	mg/L	200.7
	Potassium	157.4	0.5	mg/L	200.7
	Selenium	< 0.035	0.035	mg/L	7740
	Silver	< 0.003	0.003	mg/L	200.7
	Sodium	353.4	0.022	mg/L	200.7
	Thallium	< 0.03	0.03	mg/L	7841
	Vanadium	< 0.001	0.001	mg/L	200.7
	Zinc	4.36	0.002	mg/L	200.7

CLIENT# (LAB#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX 08010	Cyanide	**0.528**	0.020	mg/L	335.3
737283	pH	**7.32**	0.01	UNITS	150.1
	Aluminum	**< 0.06**	0.06	mg/L	200.7
	Antimony	**0.12**	0.04	mg/L	200.7
	Arsenic	**< 0.04**	0.04	mg/L	200.7
	Barium	**0.065**	0.001	mg/L	200.7
	Beryllium	**< 0.001**	0.001	mg/L	200.7
	Cadmium	**< 0.002**	0.002	mg/L	200.7
	Calcium	**120.4**	0.045	mg/L	200.7
	Chromium	**9.93**	0.002	mg/L	200.7
	Cobalt	**0.043**	0.003	mg/L	200.7
	Copper	**0.302**	0.004	mg/L	200.7
	Iron	**0.2**	0.1	mg/L	200.7
	Lead	**< 0.03**	0.03	mg/L	200.7
	Magnesium	**10.9**	0.075	mg/L	200.7
	Manganese	**0.982**	0.001	mg/L	200.7
	Mercury	**< 0.0002**	0.0002	mg/L	245.1
	Nickel	**39.2**	0.007	mg/L	200.7
	Potassium	**58.2**	0.5	mg/L	200.7
	Selenium	**< 0.035**	0.035	mg/L	7740
	Silver	**< 0.003**	0.003	mg/L	200.7
	Sodium	**127.0**	0.022	mg/L	200.7
	Thallium	**< 0.03**	0.03	mg/L	7841
	Vanadium	**< 0.001**	0.001	mg/L	200.7
	Zinc	**12.0**	0.002	mg/L	200.7

CLIENT# (LAB#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX 08011	Cyanide	< 0.020	0.020	mg/L	335.3
737284	pH	< 0.01	0.01	UNITS	150.1
	Aluminum	87	60	mg/L	200.7
	Antimony	< 40	40	mg/L	200.7
	Arsenic	68	40	mg/L	200.7
	Barium	3	1	mg/L	200.7
	Beryllium	< 1	1	mg/L	200.7
	Cadmium	< 2	2	mg/L	200.7
	Calcium	319	45	mg/L	200.7
	Chromium	137	2	mg/L	200.7
	Cobalt	44	3	mg/L	200.7
	Copper	20190	4	mg/L	200.7
	Iron	293	100	mg/L	200.7
	Lead	< 30	30	mg/L	200.7
	Magnesium	< 75	75	mg/L	200.7
	Manganese	8	1	mg/L	200.7
	Mercury	0.40	0.02	mg/L	245.1
	Nickel	41690	7	mg/L	200.7
	Potassium	< 500	500	mg/L	200.7
	Selenium	< 35	35	mg/L	7740
	Silver	< 3	3	mg/L	200.7
	Sodium	1841	22	mg/L	200.7
	Thallium	< 30	30	mg/L	7841
	Vanadium	< 1	1	mg/L	200.7
	Zinc	1493	2	mg/L	200.7

CLIENT# (LAB#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX 08012	Cyanide	**0.594**	0.020	mg/L	335.3
737285	pH	**7.18**	0.01	UNITS	150.1
	Aluminum	**< 0.06**	0.06	mg/L	200.7
	Antimony	**0.11**	0.04	mg/L	200.7
	Arsenic	**0.05**	0.04	mg/L	200.7
	Barium	**0.063**	0.001	mg/L	200.7
	Beryllium	**< 0.001**	0.001	mg/L	200.7
	Cadmium	**< 0.002**	0.002	mg/L	200.7
	Calcium	**110.7**	0.045	mg/L	200.7
	Chromium	**9.23**	0.002	mg/L	200.7
	Cobalt	**0.040**	0.003	mg/L	200.7
	Copper	**0.114**	0.004	mg/L	200.7
	Iron	**< 0.1**	0.1	mg/L	200.7
	Lead	**< 0.03**	0.03	mg/L	200.7
	Magnesium	**11.4**	0.075	mg/L	200.7
	Manganese	**0.920**	0.001	mg/L	200.7
	Mercury	**0.0005**	0.0002	mg/L	245.1
	Nickel	**33.9**	0.007	mg/L	200.7
	Potassium	**59.0**	0.5	mg/L	200.7
	Selenium	**< 0.035**	0.035	mg/L	7740
	Silver	**< 0.003**	0.003	mg/L	200.7
	Sodium	**138.3**	0.022	mg/L	200.7
	Thallium	**0.06**	0.03	mg/L	7841
	Vanadium	**< 0.001**	0.001	mg/L	200.7
	Zinc	**7.30**	0.002	mg/L	200.7

QC Data

Analyte (water)	Detection Limit (mg/L)	Preparation Blank (mg/L)	**Laboratory Control Sample**	True Value (mg/L)	Acceptable Range (mg/L)	Percent Recovery (%)
Cyanide	0.010	< 0.010	**0.214**	0.250	0.166-0.314	86
Aluminum	0.06	< 0.06	**0.316**	0.331	0.271-0.390	95
Antimony	0.04	< 0.04	**0.102**	0.112	0.084-0.132	91
Arsenic	0.04	< 0.04	**0.115**	0.132	0.099-0.156	87
Barium	0.001	< 0.001	**0.378**	0.290	0.238-0.342	130
Beryllium	0.001	< 0.001	**0.139**	0.130	0.107-0.153	107
Cadmium	0.002	< 0.002	**0.144**	0.148	0.121-0.175	97
Calcium	0.045	< 0.045	**0.141**	-	-	-
Chromium	0.002	< 0.002	**0.156**	0.156	0.127-0.184	100
Cobalt	0.003	< 0.003	**0.126**	0.134	0.110-0.158	94
Copper	0.004	< 0.004	**0.184**	0.205	0.168-0.242	90
Iron	0.1	< 0.1	**0.336**	0.337	0.276-0.398	100
Lead	0.03	< 0.03	**0.210**	0.232	0.191-0.274	91
Magnesium	0.075	< 0.075	**0.006**	-	-	-
Manganese	0.001	< 0.001	**0.169**	0.171	0.140-0.202	99
Mercury	0.0002	< 0.0002	**4.8**	5.5	2.8-8.2	87
Nickel	0.007	0.008	**0.286**	0.268	0.219-0.316	107
Potassium	0.5	< 0.5	**< 0.5**	-	-	-
Selenium	0.035	< 0.035	**0.089**	0.118	0.088-0.139	75
Silver	0.003	< 0.003	**0.106**	0.112	0.091-0.132	95
Sodium	0.022	0.032	**0.054**	-	-	-
Thallium	0.03	< 0.03	**0.020**	0.079	0.059-0.093	25
Vanadium	0.001	0.001	**0.059**	0.087	0.071-0.102	68
Zinc	0.002	0.004	**0.097**	0.093	0.076-0.110	104

QC Data

Analyte (water)	Sample Result (mg/L)	Duplicate Result (mg/L)	Relative Percent Difference	Sample Result (mg/L)	Spike Result (mg/L)	Spike Added (mg/L)	Percent Recovery (%)
Cyanide	< 0.010	< 0.010	-	< 0.010	0.063	0.100	63.0
Aluminum	< 0.06	0.11	-	0.07	1.56	2.0	74
Antimony	< 0.04	0.06	-	< 0.04	0.40	0.5	80
Arsenic	< 0.04	0.08	-	< 0.04	1.52	2.0	76
Barium	0.018	0.021	15	0.124	1.55	2.0	71
Beryllium	< 0.001	< 0.001	-	< 0.001	0.042	0.05	84
Cadmium	< 0.002	< 0.002	-	< 0.002	< 0.002	0.05	0
Calcium	47.05	48.01	2	156.3	169.6	-	-
Chromium	2.160	2.45	13	0.512	0.917	0.2	202
Cobalt	< 0.003	< 0.003	-	0.024	0.3800	0.5	71
Copper	0.797	0.961	19	0.675	1.24	0.25	226
Iron	0.2	0.3	40	0.3	2.1	1.0	130
Lead	< 0.03	< 0.03	-	0.20	0.68	0.5	96
Magnesium	4.79	4.68	2	17.3	19.1	-	-
Manganese	0.019	0.019	0	0.486	0.875	0.5	81
Mercury	0.40	0.06	148	0.40	0.18	0.1	-220
Nickel	1.76	1.76	0	27.97	31.9	0.5	786
Potassium	34.0	34.0	0	157.4	173.7	-	-
Selenium	< 0.035	< 0.035	-	< 0.035	1.64	2.0	82
Silver	< 0.003	< 0.003	-	< 0.003	< 0.003	0.05	-
Sodium	300.5	300.5	0	353.4	390.3	-	-
Thallium	< 0.03	< 0.03	-	< 0.03	1.33	2.0	-
Vanadium	< 0.001	< 0.001	-	< 0.001	0.392	0.5	-
Zinc	0.596	0.774	26	4.36	5.83	0.5	294

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Tim Curry	Kuhlman Diecasting Co.	28 / 06 / 91	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: 1 CUBITAINER	BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS-OTHER INFORMATION (condition of samples upon receipt other sample numbers etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
NDX08008	2					X					Total CN, pH, metals
NDX08009	2					X					"
NDX08010	2					X					"
NDX08011	2					X					"
NDX08012	2					X					"

DESCRIPTION OF SHIPMENT

10 PIECE(S) CONSISTING OF _____ BOX(ES)

1 ICE CHEST(S). OTHER _____

MODE OF SHIPMENT

___ COMMERCIAL CARRIER _____

___ COURIER

X SAMPLER CONVEYED

(SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] SEALED ☐ UNSEALED ☒	7/5/91	1435	[signature] SEALED ☐ UNSEALED ☒	Transport to LAB
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] SEALED ☐ UNSEALED ☒	7/5/91	1538	[signature] SEALED ☐ UNSEALED ☐	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
SEALED ☐ UNSEALED ☐			SEALED ☐ UNSEALED ☐	

7-EPA-9262(Revised 5/85)

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Kuhlman Die Casting Co.
Location: Stanley, Kansas
Site Number:
Site Code:

Collected: YR: 91 MO: 06 Day: 28 Time: ~~1500~~ 1630 Leader: Tim Curry

Sample Number: NDX.08 00 8 SMO #: _____

Sample Media (circle one):
SOIL. DUST. RINSATE. SEDIMENT, (WATER) OTHER: _____

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1-liter cubitainer		None	Total CN, pH
1-liter cubitainer		None	Total metals
		ICE	

Depth: _____ Fan #: _____ ~~Aliquots~~: Composite

Samplers: Tarwater, TAI
Brooks, TAI

COMMENTS OF FIELD PERSONNEL

Site Description: waste liquid – treatment area
high pH – may be concentrated

IBM-PC

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Kuhlman Diecasting Co.
Location: Stanley, Kansas
Site Number:
Site Code:

Collected: YR: 91 MO: 06 Day: 28 Time: ~~1515~~ 1635 Leader: T. Curry

Sample Number: NDK0E009 SMO #: _____

Sample Media (circle one):
SOIL. DUST. RINSATE. SEDIMENT, (WATER.) OTHER: _____

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1- liter cubitainer		None	Total CN, pH
1- liter cubitainer		None	Total metals
		ICE	

Depth: _____ Fan #: _____ Aliquots: composite

Samplers: Tanwater, TAT
Brooks, TAT

COMMENTS OF FIELD PERSONNEL

Site Description: waste liquid in the through / vat under processing tanks, near the treatment area.

May be concentrated.

IBM-PC

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Kuhlman Diecasting co.
Location: Stanley, KS
Site Number:
Site Code:

Collected: YR: 91 MO: 06 Day: 28 Time: ~~1530~~ 1645 Leader: T. Curry

Sample Number: NDX 08010
SMO #: _____

Sample Media (circle one):
SOIL. DUST, RINSATE. SEDIMENT, (WATER.) OTHER: _____

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1-liter cubitainer		None	Total CN, pH
1-liter cubitainer		None	Total metals
		ICE	

Depth: _____ Fan #: _____ ~~Aliquots~~: _____

Samplers: Tanwater, TAT
Brooks, TAT

COMMENTS OF FIELD PERSONNEL

Site Description: Waste water in the basement of the building - ~~West~~ ~~East~~ end East

IBM-PC

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Kuhlman Die casting co.
Location: Stanley, Ks
Site Number:
Site Code:

Collected: YR: 91 MO: 06 Day: 28 Time: ~~1545~~ 1650 Leader: T. Curry

Sample Number: NDX 08 011
SMO #:

Sample Media (circle one):
SOIL. DUST. RINSATE. SEDIMENT, (WATER,) OTHER:

Sample Split (circle one): YES (NO)

Sample Container	Tag Color	Preservative	Analysis Requested
1-liter cubitainer		None	Total CN, pH
1-liter cubitainer		None	Total metals
		ICE	

Depth:
Fan #:
Aliquots:

Samplers: Tarwater, TAI
Brooks, TAI

COMMENTS OF FIELD PERSONNEL

Site Description: waste liquid in processing tank (west end of the building) - green/blue color -
May be concentrated.

IBM-PC

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER Tim Curry STORET NO _____

DESCRIPTION Kuhlman Die Casting Co, Stanley, KS

GRAB SAMPLE DATA

FLOW	TEMP °C AIR	TEMP °C WATER	PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	00020	00010						
COLLECTION DATE YR 91 MO 06 DAY 28 TIME _____						SAMPLER NAME CODE _____	LAB NO _____	
			00400					
COLLECTION DATE YR 91 MO 06 DAY 28 TIME 1640						SAMPLER NAME CODE _____	LAB NO _____	
COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____						SAMPLER NAME CODE _____	LAB NO _____	
COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____						SAMPLER NAME CODE _____	LAB NO _____	

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MOD _____ 50052 1000's OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY

LAB NO _____

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
1 1-L cubitainer		None			Total CN pH
1 1-L cubitainer		None			Total metals

CONTACT _____ SAMPLE ☒ YES SPLIT ☐ NO NDX 08 012

REMARKS

waste liquid in the basement – west end.

concentrations unknown

Professional Service Industries, Inc.
Hall-Kimbrell Division

May 16, 1991

Janice Frizzell
Ecology & Environment
6405 Metcalf Cloverleaf Bldg 3
Overland Park, KS 66202

Re: Analytical Results
#59313051-10482

Dear Ms. Frizzell:

Enclosed are the analytical results for the nine samples received on May 3, 1991. The samples were analyzed for pH, cyanide and 23 metals. No analytical problems were encountered with the analysis of the samples and all associated QC samples were within criteria. Analytical results are summarized on the following pages.

Samples are scheduled for disposal on May 26, 1991. If you would like additional analysis or would like the samples to be returned to you, please contact us as soon as possible.

If you need more information regarding this data, please do not hesitate to contact me at (913) 865-9434. Thank you for using Professional Service Industries, Inc.

Sincerely,

Darla J Paulsen

Darla J. Paulsen
Inorganic Division Manager

DJP/crk

Encls.

4840 West 15th Street • Lawrence, KS 66049 • Phone: 913/749-2381

Ecology & Environment
59313051-10482
May 16, 1991

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08001	Aluminum	**284**	6.6	mg/L	6010
735347	Antimony	**< 4.4**	4.4	mg/L	6010
	Arsenic	**1250**	4.4	mg/L	6010
	Barium	**< 0.11**	0.11	mg/L	6010
	Beryllium	**< 0.11**	0.11	mg/L	6010
	Cadmium	**16.8**	0.22	mg/L	6010
	Calcium	**13.6**	4.95	mg/L	6010
	Chromium	**11.9**	0.22	mg/L	6010
	Cobalt	**< 0.33**	0.33	mg/L	6010
	Copper	**5820**	0.44	mg/L	6010
	Iron	**50**	11.	mg/L	6010
	Lead	**4.4**	3.3	mg/L	6010
	Magnesium	**< 8.25**	8.25	mg/L	6010
	Manganese	**< 0.11**	0.11	mg/L	6010
	Nickel	**6.54**	0.77	mg/L	6010
	Potassium	**147000**	55	mg/L	6010
	Selenium	**< 3.85**	3.85	mg/L	6010
	Silver	**< 0.33**	0.33	mg/L	6010
	Sodium	**12400**	2.42	mg/L	6010
	Thallium	**< 3.3**	3.3	mg/L	6010
	Vanadium	**< 0.11**	0.11	mg/L	6010
	Zinc	**25.0**	0.22	mg/L	6010
	Cyanide	**2650.**	1000.	mg/L	335.3
	pH	**14.02**	0.01	UNITS	150.1

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08002 735348	pH	**11.03**	0.01	UNITS	150.1
NDX08003 735349	Aluminum	**8560**	72.	mg/L	6010
	Antimony	**< 48**	48.	mg/L	6010
	Arsenic	**< 48**	48.	mg/L	6010
	Barium	**< 1.2**	1.2	mg/L	6010
	Beryllium	**< 1.2**	1.2	mg/L	6010
	Cadmium	**< 2.4**	2.4	mg/L	6010
	Calcium	**469**	54.	mg/L	6010
	Chromium	**196**	2.4	mg/L	6010
	Cobalt	**< 3.6**	3.6	mg/L	6010
	Copper	**55100**	4.8	mg/L	6010
	Iron	**1560**	120	mg/L	6010
	Lead	**< 36**	36	mg/L	6010
	Magnesium	**262**	90	mg/L	6010
	Manganese	**41.6**	1.2	mg/L	6010
	Nickel	**1980**	8.4	mg/L	6010
	Potassium	**852**	600	mg/L	6010
	Selenium	**< 42**	42.	mg/L	6010
	Silver	**4.1**	3.6	mg/L	6010
	Sodium	**1760**	27.	mg/L	6010
	Thallium	**< 3.6**	36.	mg/L	6010
	Vanadium	**2.1**	1.2	mg/L	6010
	Zinc	**37800**	2.4	mg/L	6010
	pH	**< 0.01**	0.01	UNITS	150.1

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08004	Aluminum	**114**	6.6	mg/L	6010
735350	Antimony	**210**	4.4	mg/L	6010
	Arsenic	**16.4**	4.4	mg/L	6010
	Barium	**< 0.11**	0.11	mg/L	6010
	Beryllium	**< 0.11**	0.11	mg/L	6010
	Cadmium	**< 0.22**	0.22	mg/L	6010
	Calcium	**122**	4.95	mg/L	6010
	Chromium	**20690**	0.22	mg/L	6010
	Cobalt	**9.22**	0.33	mg/L	6010
	Copper	**241**	0.44	mg/L	6010
	Iron	**88.0**	11.	mg/L	6010
	Lead	**< 3.3**	3.3	mg/L	6010
	Magnesium	**32.2**	8.25	mg/L	6010
	Manganese	**0.66**	0.11	mg/L	6010
	Nickel	**588**	0.77	mg/L	6010
	Potassium	**158**	55	mg/L	6010
	Selenium	**< 3.85**	3.85	mg/L	6010
	Silver	**0.71**	0.33	mg/L	6010
	Sodium	**9610**	2.42	mg/L	6010
	Thallium	**23.4**	3.3	mg/L	6010
	Vanadium	**< 0.11**	0.11	mg/L	6010
	Zinc	**2520**	0.22	mg/L	6010
	pH	**3.11**	0.01	UNITS	150.1

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08005	Aluminum	**581**	28.2	mg/kg	6010
735351	Antimony	**71.3**	37.6	mg/kg	6010
	Arsenic	**< 37.6**	37.6	mg/kg	6010
	Barium	**32.4**	0.94	mg/kg	6010
	Beryllium	**< 0.94**	0.94	mg/kg	6010
	Cadmium	**< 1.88**	1.88	mg/kg	6010
	Calcium	**1730**	42.3	mg/kg	6010
	Chromium	**202**	1.88	mg/kg	6010
	Cobalt	**47.5**	2.82	mg/kg	6010
	Copper	**396**	3.76	mg/kg	6010
	Iron	**1230**	94	mg/kg	6010
	Lead	**48.0**	28.2	mg/kg	6010
	Magnesium	**644**	70.5	mg/kg	6010
	Manganese	**38.6**	0.94	mg/kg	6010
	Nickel	**90730**	6.58	mg/kg	6010
	Potassium	**1453**	470	mg/kg	6010
	Selenium	**< 32.9**	32.9	mg/kg	6010
	Silver	**3.02**	2.82	mg/kg	6010
	Sodium	**40240**	20.7	mg/kg	6010
	Thallium	**< 28.2**	28.2	mg/kg	6010
	Vanadium	**8.12**	0.94	mg/kg	6010
	Zinc	**1170**	1.88	mg/kg	6010
	Cyanide	**208.**	1.0	mg/kg	9010

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08006	Aluminum	**281**	30	mg/L	6010
735352	Antimony	**35**	20	mg/L	6010
	Arsenic	**33**	20	mg/L	6010
	Barium	**5.7**	0.5	mg/L	6010
	Beryllium	**< 0.5**	0.5	mg/L	6010
	Cadmium	**< 1**	1	mg/L	6010
	Calcium	**1400**	22.5	mg/L	6010
	Chromium	**339**	1	mg/L	6010
	Cobalt	**48.4**	1.5	mg/L	6010
	Copper	**24150**	2	mg/L	6010
	Iron	**911**	50	mg/L	6010
	Lead	**139**	15	mg/L	6010
	Magnesium	**135**	37.5	mg/L	6010
	Manganese	**11.0**	0.5	mg/L	6010
	Nickel	**54400**	3.5	mg/L	6010
	Potassium	**96**	250	mg/L	6010
	Selenium	**< 17.5**	17.5	mg/L	6010
	Silver	**< 1.5**	1.5	mg/L	6010
	Sodium	**5100**	11	mg/L	6010
	Thallium	**< 15**	15	mg/L	6010
	Vanadium	**< 0.5**	0.5	mg/L	6010
	Zinc	**2860**	1	mg/L	6010
	Cyanide	**< 0.010**	0.010	mg/L	335.3
	pH	**5.03**	0.01	UNITS	150.1

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08007	Aluminum	**2.6**	0.6	mg/L	6010
735353	Antimony	**0.5**	0.4	mg/L	6010
	Arsenic	**0.7**	0.4	mg/L	6010
	Barium	**0.05**	0.01	mg/L	6010
	Beryllium	**0.01**	0.01	mg/L	6010
	Cadmium	**< 0.02**	0.02	mg/L	6010
	Calcium	**646**	0.45	mg/L	6010
	Chromium	**0.14**	0.02	mg/L	6010
	Cobalt	**0.47**	0.03	mg/L	6010
	Copper	**94.5**	0.04	mg/L	6010
	Iron	**< 1**	1	mg/L	6010
	Lead	**1.9**	0.3	mg/L	6010
	Magnesium	**10.0**	0.75	mg/L	6010
	Manganese	**0.68**	0.01	mg/L	6010
	Nickel	**668**	0.07	mg/L	6010
	Potassium	**134**	5	mg/L	6010
	Selenium	**< 0.35**	0.35	mg/L	6010
	Silver	**< 0.03**	0.03	mg/L	6010
	Sodium	**139**	0.22	mg/L	6010
	Thallium	**< 0.3**	0.3	mg/L	6010
	Vanadium	**0.04**	0.01	mg/L	6010
	Zinc	**106**	0.02	mg/L	6010
	Cyanide	**0.26**	0.10	mg/L	335.3
	pH	**< 0.01**	0.01	UNITS	150.1

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08106	Aluminum	**287**	30	mg/L	6010
735354	Antimony	**49**	20	mg/L	6010
	Arsenic	**47**	20	mg/L	6010
	Barium	**6.8**	0.5	mg/L	6010
	Beryllium	**< 0.5**	0.5	mg/L	6010
	Cadmium	**< 1**	1	mg/L	6010
	Calcium	**1440**	22.5	mg/L	6010
	Chromium	**343**	1	mg/L	6010
	Cobalt	**49.4**	1.5	mg/L	6010
	Copper	**24370**	2	mg/L	6010
	Iron	**907**	50	mg/L	6010
	Lead	**146**	15	mg/L	6010
	Magnesium	**138**	37.5	mg/L	6010
	Manganese	**10.8**	0.5	mg/L	6010
	Nickel	**54900**	3.5	mg/L	6010
	Potassium	**254**	250	mg/L	6010
	Selenium	**< 17.5**	17.5	mg/L	6010
	Silver	**< 1.5**	1.5	mg/L	6010
	Sodium	**5130**	11	mg/L	6010
	Thallium	**< 15**	15	mg/L	6010
	Vanadium	**1.9**	0.5	mg/L	6010
	Zinc	**2910**	1	mg/L	6010
	Cyanide	**0.12**	0.10	mg/L	335.3

CLIENT# (SAMPLE#)	ANALYTE	RESULT	DETECTION LIMIT	UNITS	METHOD
NDX08107	Aluminum	**44.2**	0.6	mg/L	6010
735355	Antimony	**17.9**	0.4	mg/L	6010
	Arsenic	**2.1**	0.4	mg/L	6010
	Barium	**139**	0.01	mg/L	6010
	Beryllium	**< 0.01**	0.01	mg/L	6010
	Cadmium	**< 0.02**	0.02	mg/L	6010
	Calcium	**1010**	0.45	mg/L	6010
	Chromium	**175**	0.02	mg/L	6010
	Cobalt	**1.17**	0.03	mg/L	6010
	Copper	**522**	0.04	mg/L	6010
	Iron	**1736**	1	mg/L	6010
	Lead	**636**	0.3	mg/L	6010
	Magnesium	**18.9**	0.75	mg/L	6010
	Manganese	**1.85**	0.01	mg/L	6010
	Nickel	**891**	0.07	mg/L	6010
	Potassium	**142**	5	mg/L	6010
	Selenium	**2.63**	0.35	mg/L	6010
	Silver	**1.66**	0.03	mg/L	6010
	Sodium	**136**	0.22	mg/L	6010
	Thallium	**< 0.3**	0.3	mg/L	6010
	Vanadium	**0.16**	0.01	mg/L	6010
	Zinc	**144**	0.02	mg/L	6010
	Cyanide	**25**	10	mg/L	335.3

QC Data

Analyte (soil)	Sample Result (mg/kg)	Duplicate Result (mg/kg)	Relative Percent Difference	Sample Result (mg/kg)	Spike Result (mg/kg)	Spike Added (mg/kg)	Percent Recovery (%)
Cyanide		Not enough sample for duplicate or spike					

Analyte (water)	Detection Limit (mg/L)	Preparation Blank (mg/L)	Laboratory Control Sample	True Value (mg/L)	Percent Recovery (%)
Cyanide	0.010	< 0.010	0.435	0.500	87.0

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
PAUL DOHERTY	KUHLMAN Diecasting	3 / 5 / 91	1 of 1

CONTENTS OF SHIPMENT SAMPLES ARE HIGH CONCENTRATION

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	1L-2 BOTTLE	1L-2 BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
NDX08001		1								X	23 metals, Total CN⁻, PH
NDX05002		1								X	
NDX05003		1								X	
NDX05004		1								X	
NDX08005		1								X	- Solid
NDX05006		1								X	
NDX08007		1								X	
NDX08106			1					X			
NDX08107			1					X			
											7 working day turnaround
											(due date 5-14-91)

DESCRIPTION OF SHIPMENT

1 PIECE(S) CONSISTING OF 9 ~~BOXES~~ CANS

1 ICE CHEST(S), OTHER _____

MODE OF SHIPMENT

___ COMMERCIAL CARRIER _____

X COURIER E.E. TAT delivered samples

___ SAMPLER CONVEYED _____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] SEALED ☐ UNSEALED ☒	5/3/91	1625 HRS	[signature] SEALED ☐ UNSEALED ☒	
RELINQUISHED BY SEALED ☐ UNSEALED ☐	DATE	TIME	RECEIVED BY SEALED ☐ UNSEALED ☐	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY SEALED ☐ UNSEALED ☐	DATE	TIME	RECEIVED BY SEALED ☐ UNSEALED ☐	REASON FOR CHANGE OF CUSTODY

EPA-9262 (Revised 5/85)

US EPA REGION VII ANALYTICAL SERVICES REQUEST FORM

Activity Number: NDX08 Date: 4/24/91
Site Name, City, & State: KUHLMAN DYE CASTING STANLEY KS
EPA Project Leader: PAUL DOHERTY
Section/Branch: EPAR Phone Number: X 206
Contractor Contact:
Contractor: Phone Number:
Projected Sample Delivery Date: 4/24/91
Sampling Objective: DOCUMENT HAZARDOUS SUBSTANCES

NOTE: THIS IS REVISED VERSION OF CHECKLIST ISRF SUBMITTED ON 4/23/91 PLD

REQUEST SUMMARY

No. of Samples	MGP Code	Matrix	Parameters
5	WM01-20	LIQUIDS *	P.P. METALS
5	?	LIQUIDS *	TCLP METALS **
6	HF01	LIQUID *	pH
3	WT09	LIQUID *	CN
(2		LIQUID *	FLASH POINT)
(2		LIQUID *	VOAs)
3 X	SM01-25	SOLID *	P.P. METALS
1	SM 43-53	SOLID *	TCLP METALS **
3 X	ST09	SOLID *	CN

SPECIAL REQUIREMENTS OR COMMENTS
* HIGH HAZARD/HIGH CONC DRUM SAMPLE
PRIORITY TURNAROUND REQUESTED FOR ENFORCEMENT ORDER
** HOLD ON TCLP METALS FOR LIQUIDS UNTIL TOTAL METALS DATA IS REVIEWED

APPROVALS:

EPA Project Leader 4/24/91 (Date)

Branch Chief or Section Chief 4/24/91 (Date)

DATA REVIEW OPTIONS:
[] In-Depth (justification req'd.)
[] Routine

NOTE: SUBMIT TO RQAO/ENSV 30 DAYS PRIOR TO SAMPLE DELIVERY DATE

FOLLOWING TO BE COMPLETED BY ENVIRONMENTAL SERVICES DIVISION ONLY:

Concurrences: [] Generic [] Site Specific [] Other

RQAO Comment:

LABO

Lab Assignment:
Region VII
CLP
ESAT
RECAP
Other:

Scheduled Completion:
[] Routine (In House: 4 weeks) (CLP: 8 weeks)
[] Other:
Date:

Distribution:
EPA Project Leader
Chief, LABO/ENSV
Chief, GNAN/LABO
Chief, ORGN/LABO
Chief, CLPM/LABO
Data Coordinator
RSCC
EDSB
EMCM
EP&R Team Leader
ESAT Team Leader
Contractor: (above)
Other:

NOTE: Sampling Supplies Request Form on Other Side

Form Revised 08/23/90

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION	SHEET
Doherty	Kohlman Dye Casting	4 (DAY) 24 (MONTH) 91 (YEAR)	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	TYPE OF CONTAINERS: CUBITAINER	8oz BOTTLE	VOA VIAL BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	SAMPLED MEDIA: water	[illegible]	sediment	dust	other [illegible]	RECEIVING LABORATORY REMARKS OTHER INFORMATION (condition of samples upon receipt other sample numbers etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
NDX08001		2								✓	
NDX08002		1								✓	
NDX08003		1								✓	
NDX08004		1								✓	
NDX08005		2						✓			
NDX08006		2					✓				
NDX08007		2					✓				
NDX08008			1							✓	
NDX08009			1							✓	

DESCRIPTION OF SHIPMENT

_____ PIECE(S) CONSISTING OF _____ BOX(ES)

_____ ICE CHEST(S), OTHER _____

MODE OF SHIPMENT

_____ COMMERCIAL CARRIER _____

_____ COURIER

_____ SAMPLER CONVEYED _____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
[signature] SEALED UNSEALED	4/24/91	AM	SEALED UNSEALED	
RELINQUISHED BY SEALED UNSEALED	DATE	TIME	RECEIVED BY SEALED UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY SEALED UNSEALED	DATE	TIME	RECEIVED BY SEALED UNSEALED	REASON FOR CHANGE OF CUSTODY

7 EPA 9262(Revised 5/85)

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C		PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	AIR 00020	WATER 00010						

COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08001

			00400					

COLLECTION DATE YR ____ MO ____ DAY ____ TIME ____ SAMPLER NAME CODE ____ LAB NO ____

COLLECTION DATE YR ____ MO ____ DAY ____ TIME ____ SAMPLER NAME CODE ____ LAB NO ____

COLLECTION DATE YR ____ MO ____ DAY ____ TIME ____ SAMPLER NAME CODE ____ LAB NO ____

COMPOSITE SAMPLE DATA

BEGIN DATE YR ____ MO ____ DAY ____ TIME ____ LAB NO ____

END DATE YR ____ MO ____ DAY ____ TIME ____ EQUIPMENT CODE ____

FLOW RATE ____ (50050) MGD ____ (50051) 1000's OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE ____

WATER CHEMISTRY

LAB # NDX08001

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
8 oz	WHITE	NA			P.P. METALS; pH TCLP METALS
8 oz	WHITE	NA			CN

CONTACT _____ SAMPLE [ ] YES SPLIT [ ] NO _____

REMARKS DRUM LABELLED "COPPER CYANIDE" LIQUID; CLEAR YELLOW

HIGH HAZARD / HIGH CONC.

[illegible]

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C		PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	AIR 00020	WATER 00010						

COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08002

00400

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50057 1000's OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY LAB NO NDX08002

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MUSKIE	LABORATORY REGION	ANALYSES
8 oz	WHITE	NA			pH

CONTACT _____ SAMPLE ☐ YES SPLIT ☐ NO _____

REMARKS DRUM LABELLED "NITRIC ACID"

LIQUID; ~~[illegible]~~ DARK BROWN

HIGH HAZARD / HIGH CONC

SAMPLERS: J. CHANDLER & B. HARRISON

EPA 7241 (Rev. 1-73) GSA HC 78 1695

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C		PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	AIR 00020	WATER 00010						

COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08003

			00400					

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50051 1000's OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY LAB NO NDX08003

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
8 OZ	WHITE	NA			P.P. METALS · TCLP METALS & pH

CONTACT _____ SAMPLE ☐ YES SPLIT ☐ NO _____

REMARKS DRUM LABELLED "ACID COPPER"
LIQUID: AQUA-GREEN

HIGH HAZARD / HIGH CONC

SAMPLERS: J. CHANDLER & B. MORRISON

EPA 7240 (6-75) GSA MC 70 1695

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER Paul Doherty STORET NO _____

DESCRIPTION Kuhlman Dye Casting

GRAB SAMPLE DATA

FLOW	TEMP °C		PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	AIR 00020	WATER 00010						

COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08004

			00400					

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50052 SAMPLE VOL. OR GAL. DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY LAB # NDX08004

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
8 oz	WHITE	NA			P.P. METALS, PH TCLP METALS

CONTACT _____ SAMPLE ☐ YES SPLIT ☐ NO _____

REMARKS DRUM LABELLED "CHROME ACID"

LIQUID; VERY DARK BROWN

HIGH HAZARD / HIGH CONC

SAMPLERS: J. CHANDLER & B. MORRISON

EPA FORM 2070-13 (7-73) GSA NC 78 1675

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C		PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	AIR 00070	WATER 00010						
COLLECTION DATE YR 91			4	DAY 23	TIME PM	SAMPLER NAME CODE	LAB NO NDX08006	
			00400					
COLLECTION DATE YR			MO	DAY	TIME	SAMPLER NAME CODE	LAB NO	
COLLECTION DATE YR			MO	DAY	TIME	SAMPLER NAME CODE	LAB NO	
COLLECTION DATE YR			MO	DAY	TIME	SAMPLER NAME CODE	LAB NO	

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50057 1000's OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY

LAB NO NDX08006

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MORNE	LABORATORY REGION	ANALYSES
8 OZ	WHITE	NA			P.P. METALS; TCLP METALS; PH
8 OZ	WHITE	NA			CN

CONTACT _____ SAMPLE SENT ☐ YES ☐ NO

REMARKS LIQUID FROM PROCESS TANK

LIQUID: DARK AQUA-GREEN

HIGH HAZARD/HIGH CONC.

SAMPLERS: J. CHANDLER & B. MORRISON

EPA 2/61 (7-73) GSA HC 70 1695

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER Paul Doherty STORET NO _____

DESCRIPTION Kuhlman Dye Casting

GRAB SAMPLE DATA

FLOW	TEMP °C		PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	AIR 00020	WATER 00010						

COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08005

00400

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50052 1000 CU GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY LAB NO NDX08005

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
8 OZ	WHITE	NA			METALS; TCLP METALS 2
8 OZ	WHITE	NA			CN

CONTACT _____ SAMPLE ☐ YES SPLIT ☐ NO _____

REMARKS SOLID; BLACK CRYSTALS

HIGH HAZARD / HIGH CONC

SAMPLERS: J. Chandler & B. Morrison

GSA HC 78 1695

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C AIR	TEMP °C WATER	PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	00020	00010						

COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08007

00400

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50052 1000 x GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY LAB NO NDX08007

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSIS
8 OZ	WHITE	NA			P.P. METALS, pH TCLP METALS *
8 OZ	WHITE	NA			CN *

CONTACT HIGH HAZARD / HIGH CONC SAMPLE ☐ YES SPLIT ☐ NO

REMARKS LIQUID IN SPILL / DRAINAGE TRAUGH UNDER TANK

2 PHASE LIQUID OVER SOLID

LIQUID IS PEA GREEN COLOR

SLUDGE IS GRAY GREEN SEDIMENT

* ANALYZE BOTH PHASES IF POSSIBLE

SAMPLERS: J. CHANDLER & B. MORRISON

OSA MC 78 1695

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C AIR 00020	TEMP °C WATER 00010	PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00019 (GPM) ☐ 00061 (CFS)								
COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM						SAMPLER NAME CODE	LAB NO NDX08008	
			00400					
COLLECTION DATE YR ___ MO ___ DAY ___ TIME ___						SAMPLER NAME CODE	LAB NO	
COLLECTION DATE YR ___ MO ___ DAY ___ TIME ___						SAMPLER NAME CODE	LAB NO	
COLLECTION DATE YR ___ MO ___ DAY ___ TIME ___						SAMPLER NAME CODE	LAB NO	

COMPOSITE SAMPLE DATA

BEGIN DATE YR ___ MO ___ DAY ___ TIME ___ LAB NO ___

END DATE YR ___ MO ___ DAY ___ TIME ___ EQUIPMENT CODE ___

FLOW RATE ___ 50050 MGD ___ 50052 1000's OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE ___

WATER CHEMISTRY

LAB NO NDX08008

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
1 VOA VIAL	WHITE	NA			FLASH POINT & VOA

CONTACT ___ SAMPLE ☐ YES SPLIT ☐ NO ___

REMARKS DRUM LABELLED "XYLOL"
CLEAR LIQUID

HIGH HAZARD / HIGH CONC.

SAMPLERS: J. CHANDLER & B. MORRISON

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY – REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO _____ SURVEY LEADER PAUL DOHERTY STORET NO _____

DESCRIPTION KUHLMAN DYE CASTING

GRAB SAMPLE DATA

FLOW	TEMP °C AIR	TEMP °C WATER	PH	DO	FECAL COLI	OIL & GREASE	OTHER	OTHER
☐ 00059 (GPM) ☐ 00061 (CFS)	00020	00010						
COLLECTION DATE YR 91 MO 4 DAY 23 TIME PM SAMPLER NAME CODE _____ LAB NO NDX08009			00400					
COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____								
COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____								
COLLECTION DATE YR _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____								

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ 50050 MGD _____ 50051 1000 GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY

LAB NO NDX08009

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY MOBILE	LABORATORY REGION	ANALYSES
1 VOA VIAL	WHITE	NA			FLASHPOINT; VOA

CONTACT _____ SAMPLE ☐ YES SPLIT ☐ NO _____

REMARKS DRUM LABELED "ACRYLIC LACQUER THINNER" CLEAR LIQUID

HIGH HAZARD / HIGH CONC

SAMPLERS: J. CHANDLER & B. MORRISON

EPA 7241 (Rev. 7-73) GSA KC 78 1695

US EPA REGION VII ANALYTICAL SERVICES REQUEST FORM

Activity Number: NDX08 Date: 4/24/91
Site Name, City, & State KUHLMAN DYE CASTING STANLEY KS
EPA Project Leader: PAUL DOHERTY
Section/Branch: EP&R Phone Number: X 206
Contractor Contact:
Contractor: Phone Number:
Projected Sample Delivery Date: 4/24/91
Sampling Objective: DOCUMENT HAZARDOUS SUBSTANCES

NOTE: THIS IS REVISED VERSION OF EMERGENCY ASRF SUBMITTED ON 4/23/91 PLD

REQUEST SUMMARY

No. of Samples	MGP Code ?	Matrix	Parameters
5	WM01-20	LIQUIDS*	P.P. METALS
5	?	LIQUIDS*	TCLP METALS **
6	HF01	LIQUID*	pH
3	WT09	LIQUID*	CN
2		LIQUID*	FLASH POINT
2		LIQUID*	VOA's
1	SM01-25	SOLID*	P.P. METALS
1	SM 43-53	SOLID*	TCLP METALS
1	ST09	SOLID*	CN

SPECIAL REQUIREMENTS OR COMMENTS
* HIGH HAZARD/HIGH CONC DRUM SAMPLES
PRIORITY TURNAROUND REQUESTED FOR ENFORCEMENT ORDER
** HOLD ON TCLP METALS FOR LIQUIDS UNTIL TOTAL METALS DATA IS REVIEWED

APPROVALS:

[signature] 4/24/91
EPA Project Leader (Date)

[signature] 4/24/91
Branch Chief or Section Chief (Date)

DATA REVIEW OPTIONS:
[] In-Depth (justification req'd.)
[] Routine

NOTE: SUBMIT TO RQAO/ENSV 30 DAYS PRIOR TO SAMPLE DELIVERY DATE

FOLLOWING TO BE COMPLETED BY ENVIRONMENTAL SERVICES DIVISION ONLY:

Concurrences: [] Generic [] Site Specific [] Other

RQAO Comment:

LABO

Lab Assignment:
[] Region VII
[] CLP
[] ESAT
[] RECAP
[] Other:

Scheduled Completion:
[] Routine
(In House: 4 weeks)
(CLP: 8 weeks)
[] Other:
Date:

Distribution:
[] EPA Project Leader
[] Chief, LABO/ENSV
[] Chief, GNAN/LABO
[] Chief, ORGN/LABO
[] Chief, CLPM/LABO
[] Data Coordinator
[] RSCC
[] EDSB
[] EMCM
[] EP&R Team Leader
[] ESAT Team Leader
[] Contractor: (above)
[] Other:

NOTE: Sampling Supplies Request Form on Other Side

Form Revised 08/23/90

APPENDIX F - CALCULATION OF CORRELATION COEFFICIENT BETWEEN XRF AND LABORATORY DATA

TABLE 1: CORRELATION COEFFICIENT OF XRF/LAB RESULTS FOR CHROMIUM
KUHLMAN DIECASTING COMPANY SITE - PHASE II
TDD: T07-9107-035D

SAMPLE No	XRF Cr	LAB Cr
BGJGK013	20	1520
BGJGK025	40	4.8
BGJGK006	50	12.2
BGJGK035	50	12.6
BGJGK009	50	16.5
BGJGK033	50	48.1
BGJGK004	60	12.1
BGJGK021	60	17.7
BGGGK039	60	42.6
BGJGK030	60	65.2
BGJGK011	60	191
BGJGK019	70	13.2
BGJGK003	70	14.8
BGGGK038	70	19.3
BGJGK001	70	39.3
BGJGK024	70	46.8
BGJGK014	70	48.5
BGJGK010	70	57.6
BGGGK037	70	100
BGJGK007	80	13
BGJGK002	80	24.3
BGJGK005	90	15.3
BGJGK008	90	66.2
BGJGK036	100	136
BGJGK020	110	29.1
BGJGK029	120	41.2
BGGGK035	120	217
BGGGK036	120	226
BGJGK037	130	135
BGJGK027	140	13.1
BGJGK018	170	281
BGJGK017	170	670
BGJGK032	180	526
BGJGK031	210	695
BGJGK028	320	179
BGJGK026	350	381
BGJGK015	400	343
BGJGK016	480	2390
BGJGK022D	490	3000
BGJGK022	570	2250
BGGGK040	850	5980

LAB UNIT IS MG/KG

Regression Output:

Constant	-397.596
Std Err of Y Est	562.8739
R Squared	0.752798
No. of Observations	41
Degrees of Freedom	39
X Coefficient(s)	5.577033
Std Err of Coef.	0.51175

TABLE 2: CORRELATION COEFFICIENT OF XRF/LAB RESULTS FOR COPPER
KUHLMAN DIECASTING COMPANY SITE - PHASE II
TDD: T07-9107-035D

SAMPLE No	XRF Cu	LAB Cu
BGJGK005	0	13.5
BGJGK009	0	18.4
BGJGK007	0	19.3
BGJGK001	0	28.8
BGJGK020	0	62.8
BGJGK004	10	11.5
BGJGK006	20	14.8
BGGGK039	20	29.4
BGJGK002	20	45.7
BGGGK037	30	192
BGJGK003	40	15.1
BGJGK014	40	45.2
BGJGK029	40	67.6
BGGGK038	50	16.7
BGJGK010	50	77.9
BGJGK024	60	33.2
BGJGK018	70	116
BGJGK021	80	15.1
BGJGK033	80	39.9
BGJGK019	80	41.5
BGJGK008	80	78.5
BGJGK011	80	192
BGJGK030	90	136
BGGGK035	100	207
BGGGK036	120	231
BGJGK036	130	130
BGJGK031	130	177
BGJGK037	130	246
BGJGK025	140	8.6
BGJGK027	140	16.9
BGJGK035	150	27.8
BGJGK017	240	201
BGJGK032	290	186
BGJGK026	380	378
BGJGK022D	1080	1770
BGJGK028	1130	193
BGJGK022	1150	1230
BGGGK040	1250	3090
BGJGK015	1290	1130
BGJGK013	2940	5280
BGJGK016	3650	3850

LAB UNIT IS MG/KG

Regression Output:

Constant	-19.6785
Std Err of Y Est	435.7987
R Squared	0.849884
No. of Observations	41
Degrees of Freedom	39
X Coefficient(s)	1.330951
Std Err of Coef.	0.08957

TABLE 3: CORRELATION COEFFICIENT OF XRF/LAB RESULTS FOR NICKEL
KUHLMAN DIECASTING COMPANY SITE - PHASE II
TDD: T07-9107-035D

SAMPLE No	XRF Ni	LAB Ni
BGJGK028	50	116
BGJGK013	90	80.7
BGJGK008	100	139
BGJGK020	110	45.5
BGJGK010	110	53.1
BGJGK033	110	57.3
BGJGK002	110	70.3
BGJGK035	111	43.8
BGJGK025	120	7.3
BGJGK019	120	23.8
BGJGK004	130	15
BGJGK021	130	16.5
BGJGK006	130	16.8
BGJGK011	130	16.9
BGJGK009	130	18
BGJGK003	140	15.7
BGJGK001	140	41.1
BGJGK024	140	59
BGJGK014	140	70
BGJGK036	140	157
BGJGK007	150	20
BGJGK029	150	150
BGJGK037	150	311
BGJGK005	160	13.8
BGGGK039	170	55.4
BGJGK031	170	190
BGGGK037	180	112
BGJGK030	190	126
BGGGK038	200	20.5
BGJGK027	240	18.1
BGJGK018	250	331
BGGGK035	260	346
BGJGK017	260	448
BGGGK036	280	341
BGJGK032	300	375
BGJGK015	600	886
BGJGK026	1560	1400
BGJGK022D	2950	4120
BGJGK016	3670	4370
BGJGK022	4470	3130
BGGGK040	9260	7990

LAB UNIT IS MG/KG

Regression Output:

Constant	10.47657
Std Err of Y Est	345.2837
R Squared	0.952147
No. of Observations	41
Degrees of Freedom	39
X Coefficient(s)	0.906648
Std Err of Coef.	0.032547

ATTACHMENT G

INVENTORY OF EMPTY DRUMS

INVENTORY OF EMPTY DRUMS
[illegible] DIECASTING CO., STANLEY [illegible]

		MANUFACTURER/COMMENTS				
		NO SAMPLE COLLECTED				
		NO SAMPLE COLLECTED				
		NO SAMPLE				
		MAN WASTE				
		MATTERMID, INC.				
		NOT ENOUGH AMOUNT TO				
		N/A				
		NO SAMPLE COLLECTED				
		FOR INDUSTRIAL USE ONLY				
		ATLANTA, GA 30301				
		NO MARKINGS				
		NO MARKINGS				
		PRODUCTS, ERASER,				
		NO LABELS				
		NO MARKINGS				
		NO SAMPLE COLLECTED				
		DAZE - BATCH #5848				
		CODE 18-325				
		TOP				
		302, SOLVENT SUPPLY CO				
		SIDE, MO				

INVENTORY OF EMPTY DRUMS
[illegible] DIECASTING CO., STANLEY, [illegible]

[illegible]	[illegible]	MANUFACTURER/COMMENTS	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	DUPONT	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	DUPONT	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A NO SAMPLE COLLECTED	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A NO SAMPLE COLLECTED	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	N/A	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	TEXAS URETHANES, AUSTIN, TX	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	TEXAS URETHANES, AUSTIN, TX	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ATTACHMENT H

INVENTORY OF PRODUCTS THAT WERE USED IN THE WWTP

[illegible]TS THAT WERE [illegible]
[illegible]ING CO., [illegible]

[illegible]RESS/COMMENTS

[illegible] CHEMICAL CO., [illegible]
[illegible]ITATION
[illegible]S & ROGERS

[illegible] & ROGERS
[illegible]EMICALS
[illegible] & ROGERS
[illegible] DEARBORN CO., [illegible]
[illegible]ST., LAKE ZURICH,
[illegible] DEARBORN CO., [illegible]
[illegible]T., LAKE ZURICH,

[illegible] DEARBORD & CO.,
[illegible]T., LAKE ZURICH,
[illegible] DEARBORN CO., [illegible]
[illegible]ST., LAKE ZURICH,

[illegible] DEARBORN CO., [illegible]
[illegible]T., LAKE ZURICH,

[illegible]ARBORN, 300 GENESEE
[illegible], IL 60047

[illegible] DEARBORN, 300 [illegible]
[illegible] ZURICH, IL 60047

[illegible] DEARBORN CO., [illegible]
[illegible]T., LAKE ZURICH,
[illegible] DEARBORN CO., [illegible]
[illegible]T., LAKE ZURICH,
[illegible] DEARBORD & CO.,
[illegible]T., LAKE ZURICH,
[illegible] CO., 300 GENESEE
[illegible], IL 60647

[illegible] CO., 300 GENESEE
[illegible], IL
[illegible] & ROGERS [illegible]
[illegible] ROOM
[illegible] & ROGERS
[illegible] DEARBORD, LAKE [illegible]

ATTACHMENT I

CHRONOLOGY OF OFFSITE DISPOSAL OF SOLID WASTES

CHRONOLOGY OF OFFSITE DISPOS[illegible]
KUHLMAN DIECASTING CO. SITE, [illegible], KANSAS

DATE	TRANSPORTER	No. OF ROLLOFF BOXES	No. OF DRUMS	COMMENT
** [illegible] FACILITY: AMERICAN COMPRESSED STEEL				
[illegible]	AMERICAN COMPRESSED STEEL	1	0	[illegible] METALS RECYCLE
[illegible]	AMERICAN COMPRESSED STEEL	1	0	[illegible] METALS RECYCLE
[illegible]	AMERICAN COMPRESSED STEEL	1	0	[illegible] METALS RECYCLE
[illegible]	AMERICAN COMPRESSED STEEL	1	0	[illegible] METALS RECYCLE
[illegible]	AMERICAN COMPRESSED STEEL	1	0	[illegible] METALS RECYCLE
[illegible]	AMERICAN COMPRESSED STEEL	1	0	[illegible] METALS RECYCLE
** [illegible] **		6	0	
** [illegible] RECYCLE FACILITY: JEFFERSON SMURFIT CORP.				
[illegible]	JSC	1	0	[illegible] CARDBOARD RECYCLE
[illegible]	JSC	1	0	[illegible] CARDBOARD RECYCLE
[illegible]	JSC	2	0	[illegible] CARDBOARD RECYCLE
** [illegible] **		4	0	
** [illegible] RECYCLE FACILITY: [illegible] LANDFILL				
[illegible]	JSC	1	32	[illegible] FILTERS SPECIAL WASTE
[illegible]	JSC	1	10	[illegible] FILTERS SPECIAL WASTE
[illegible]	JSC	1	29	[illegible] SLUDGE SPECIAL WASTE
[illegible]	JSC	1	10	[illegible] SLUDGE SPECIAL WASTE
[illegible]	[illegible] DISPOSAL CO.	1	0	[illegible]
** [illegible] **		5	81	
** [illegible] RECYCLE FACILITY: PEORIA DISPOSAL CO.				
[illegible]	PEORIA DISPOSAL CO.	1	0	FILTER PRESS SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	2	0	FILTER PRESS SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	FILTER PRESS SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	2	0	FILTER PRESS SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	FILTER PRESS SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	3	0	SUMP FILTER SAND & SUMP DIM SLUDGE
[illegible]	PEORIA DISPOSAL CO.	1	0	SUMP DIM SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	SUMP DIM SLUDGE [illegible]
[illegible]	PEORIA DISPOSAL CO.	1	0	FILTER PRESS SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	3	0	[illegible] DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	2	0	[illegible]
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] SLUDGE [illegible]
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	2	0	[illegible] SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] SLUDGE [illegible]
[illegible]	PEORIA DISPOSAL CO.	3	0	[illegible] SLUDGE DISPOSAL
[illegible]	PEORIA DISPOSAL CO.	1	0	[illegible] SLUDGE DISPOSAL

CHRONOLOGY OF OFFSITE DISPOS[illegible]
KUHLMAN DIECASTING CO. SITE, [illegible], [illegible]

DATE	TRANSPORTER	No. OF ROLLOFF BOXES	No. OF DRUMS	[illegible]MENT
[illegible]	[illegible] DISPOSAL CO.	1	0	[illegible]
** [illegible] **				
		31	0	
** [illegible] FACILITY: WILLEY DISPOSAL CO.				
[illegible]	WILLEY DISPOSAL CO.	1	0	[illegible] DISPOSAL
[illegible]	WILLEY DISPOSAL CO.	1	0	[illegible], [illegible]
[illegible]	WILLEY DISPOSAL CO.	1	0	[illegible]
[illegible]	WILLEY DISPOSAL CO.	1	0	[illegible]
** [illegible] **				
		4	0	
*** [illegible] ***				
		50	81	

ATTACHMENT J

LIST OF DRUMS THAT WERE DISPOSED OF AT JOHNSON COUNTY LANDFILL (JCL), KANSAS

[illegible]MS THAT WERE [illegible]
[illegible]TING CO., STAN[illegible]

[illegible]PER/COMMENTS

[illegible]

[illegible]NTS, NO SAM[illegible]

[illegible]MNANTS-NO SAMPLE

[illegible]ANTS-NO SAMPLE

[illegible]ANTS-NO SAMPLE

EMNANTS-NO SAMPLE
[illegible]MNANTS-NO SAMPLE
[illegible] - CLOTH REMNANTS
[illegible] - CLOTH REMNANTS

[illegible] CLOTH REMNANTS
[illegible] - CLOTH REMNANTS
[illegible] - CLOTH REMNANTS
[illegible] - CLOTH REMNANTS
[illegible] - CLOTH REMNANTS

[illegible] WASTE - SEE I-[illegible]
[illegible]ESULTS
[illegible] WASTE - SEE I-[illegible]
[illegible] RESULTS
[illegible]ULTS, PO BO[illegible],
[illegible], HOWELL, MI
[illegible],I-328=W400,[illegible]
[illegible]4,I-330=W404,I-[illegible]

[illegible] DIECASTING = GENERA[illegible]

[illegible] DIECASTING - CLOT[illegible]
[illegible]TH

[illegible]TH
[illegible]TH

[illegible]NG - CLOTH

ATTACHMENT K

LIST OF DRUMS THAT WERE DISPOSED OF AT CYANOKEM, MICHIGAN

[illegible] DISPOSED OF AT
[illegible] CASTING CO., STAN [illegible]

[illegible] TUPER/COMMENTS

[illegible] DATED OF VATS' BOT[illegible]
[illegible] PHASE I REMOVAL
[illegible]

[illegible]
[illegible] OTH
[illegible]
[illegible] OTH
[illegible] STED, DENTED

ATTACHMENT L

LIST OF DRUMS THAT WERE DISPOSED OF AT ENCYCLE, TEXAS

DISPOSED OF AT
ASTING CO., STA

RER/COMMENTS

RESEARCH LABS,
, LENEXA KS
SOL
ID SOLUTION

ID, WATERBURY,

ID INC., 50 BROO
, CT 06708
, 215-335-099

, 14057 STEPHENS,

, 5129 VARCH AVE.,
IA, PA 19135
0990

INTERNATIONAL, WA

LABORATORIES
MEMPHIS, TN, 2
RESEARCH LABS,
A AVE., LENEXA,
EMICALS, OLIN CORP.,
RD., STAMFORD,
CHEMICAL CORP.

RESEARCH LABS,
EXA, KS

EARCH LABS,
AVE., LENEXA,
GROUND
DITIES INTERNAT
, NASHVILLE, TN
CHEM. CO.

T-715 NOT END

TAG #238
SIGN

...E DISPOSED OF A...
...ASTING CO., STA...

...ER/COMMENTS

==========

...ND TANK T-7..., ...
...OF LIQUID
... ONLY 1" OF LI...
...T OF VOLUME IN ...

ATTACHMENT M

LIST OF DRUMS THAT WERE DISPOSED OF AT SOLVENT RECOVERY. (SRC), MISSOURI

WERE DISPOSED OF

CASTING CO., STAN

PER/COMMENTS

IDATED OF DRUMS DUR

CARBIDE, DANBURY

PRODUCTS CO., 57

SHARON RD., BROOKF

(216)294-1617

WASTE - SEE I-305

RESULTS

WASTE

WASTE - SEE I-305

RESULTS

MAC DERMID LAB

MICALS, OLIN CORP

RD., STAMFORD

AYERS

TREND

LUBRICANTS, 422 AN

MO 63042 (314)

SAFE, E.F. HOUGHTON

FORGE, PA 19482

SAFE

SUPPLY CO., 4124 RI

RSIDE, MO

, RUSTY TOP

SUPPLY, INC.,

KANSAS CITY, MO

, 200 E. RAND

60601

ATTACHMENT N

NPDES PERMIT FOR KUHLMAN'S WWTP

Ralph Summers

State of Kansas

Mike Hayden, Governor

Department of Health and Environment
Division of Environment

Stanley C. Grant, Ph.D., Secretary

Forbes Field, Bldg. 740, Topeka, KS 66620-0002

(913) 296-1535
FAX (913) 296-6247

August 22, 1990

RECEIVED
AUG 24 1990
WATR - WACM

Kuhlman Diecasting Co.
164th & Mission Road
P.O. Box 23218
Stanley, Kansas 66223

Re: Kansas Water Pollution Control
Permit No. I-MO26-P001

Gentlemen:

Enclosed please find a modified copy of your Kansas Water Pollution Control Permit. While it is permissible to make as many copies as needed for monitoring and reporting purposes, you need to retain the original permit for your files.

We suggest you carefully read the terms and conditions of your permit and understand these terms and conditions are enforceable under both State and Federal law.

We look forward to working with you in the achievement and maintenance of high quality water for the State of Kansas.

Sincerely,

James A. Power, Jr., P.E.
Director
Division of Environment

Enclosure
cc: Northeast District

BLS:bb

Kansas Permit No.: I-M026-P001

Federal Permit No.: KS-0001881

KANSAS WATER POLLUTION CONTROL PERMIT AND
AUTHORIZATION TO DISCHARGE UNDER
THE NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM

Pursuant to the Provisions of Kansas Statutes Annotated 65-164 and 65-165, the Federal Water Pollution Control Act as amended, (33 U.S.C. 1251 et seq; the "Act"),

Owner: Kuhlman Diecasting Company

Owner's Address: P.O. Box 23218
164th & Mission Road
Stanley, Kansas 66223

Facility Name: Kuhlman Diecasting Company

Facility Location: 164th & Mission Road
Stanley, Kansas 66223

Receiving Stream & Basin: Missouri River via Big Blue River
Missouri River Basin

is authorized to discharge from the waste treatment facility described herein, in accordance with effluent limitations and monitoring requirements as set forth herein.

This permit shall become effective August 24, 1990, will supersede all previous permits and/or agreements in effect between the Kansas Department of Health and Environment and the permittee, and will expire August 2, 1993.

FACILITY DESCRIPTION:

This facility is a diecasting job shop engaged in the production of zinc alloy diecasting, including captive electroplating operation. Parts are produced for the automotive, communications and appliances industries. The process wastewater treatment facility consists of a cyanide destruction unit, hexavalent chromium reduction unit, equalization basin, pH adjustment, flocculation basin, settling basin #1, settling basin #2 and a dynasand filter. Sludge from the equalization basin and settling basin #2 is pumped to a filter press for dewatering. Sludge disposal is regulated under RCRA. Domestic waste is treated by a two cell non-overflowing waste stabilization lagoon.

Secretary, Kansas Department of Health and Environment

August 24, 1990
Date

Kansas Permit No.: I-M026-P001

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The effluent limitations shall become effective on the dates specified herein. Such discharges shall be controlled, limited, and monitored by the permittee as specified. There shall be no discharge of floating solids or visible foam in other than trace amounts.

Monitoring reports shall be submitted on or before the 28th day of the following month. In the event no discharge occurs, written notification is still required.

Effective Date Outfall Number and Effluent Parameter(s)	EFFLUENT LIMITATIONS Final Limitations Upon Issuance	MONITORING REQUIREMENTS Measurement Frequency	Sample Type
001 - Wastewater treatment plant discharge			
Flow - MGD	N/A	Daily	Flow Meter
Chemical Oxygen Demand Daily Maximum-mg/l (lbs/day)	--- (---)	Twice Monthly	24-Hr. Composite
Total Suspended Solids Daily Average-mg/l (lbs/day) Daily Maximum-mg/l (lbs/day)	31 (---) 60 (---)	Twice Monthly	24-Hr. Composite
Oil and Grease Daily Average-mg/l (lbs/day) Daily Maximum-mg/l (lbs/day)	10 (---) 15 (---)	Twice Monthly	grab
Total Chromium Daily Average-mg/l (lbs/day) Daily Maximum-mg/l (lbs/day)	1.71 (---) 2.77 (---)	Twice Monthly	24-Hr. Composite
Hexavalent Chromium Daily Maximum-mg/l (lbs/day)	0.05 (---)	Twice Monthly	24-Hr. Composite
Total Cadmium Daily Average-mg/l (lbs/day) Daily Maximum-mg/l (lbs/day)	0.26 (---) 0.36 (---)	Twice Monthly	24-Hr. Composite
Soluble Copper Daily Maximum-mg/l (lbs/day)	0.70 (---)	Twice Monthly	24-Hr. Composite
Total Lead Daily Maximum-mg/l (lbs/day)	.35 (---)	Twice Monthly	24-Hr. Composite
Total Nickel Daily Maximum-mg/l (lbs/day)	2.10 (---)	Twice Monthly	24-Hr. Composite
Total Silver Daily Maximum-mg/l (lbs/day)	0.03 (---)	Twice Monthly	24-Hr. Composite

Effective Date Outfall Number and Effluent Parameters(s)	EFFLUENT LIMITATIONS Final Limitations Upon Issuance	MONITORING REQUIREMENTS Measurement Frequency	Sample Type
Total Zinc Daily Maximum-mg/l (lbs/day)	1.40 (---)	Twice Monthly	24-Hr. Composite
Total Cyanide* Daily Average-mg/l (lbs/day) Daily Maximum-mg/l (lbs/day)	 0.65 (---) 1.20 (---)	Twice Monthly	grab
Free Cyanide** Daily Average-mg/l (lbs/day) Daily Maximum-mg/l (lbs/day)	 0.02 (---) 0.05 (---)	Twice Monthly	grab
Total Toxic Organics (TTO)*** Daily Maximum-mg/l (lbs/day)	 2.13 (---)	Quarterly****	grab
pH - Standard Units	6.0-9.0	Twice Monthly	grab
Biomonitoring	---+	Quarterly****	grab

*Effluent limitations apply to the cyanide treatment unit discharge prior to commingling with other process wastewater.

**The term Free Cyanide is defined to be the difference between total cyanide and amenable cyanide. Total cyanide, amenable cyanide and the difference shall be reported in adjacent columns in the discharge monitoring reports.

***The term "TTO" shall mean total toxic organics, which is the summation of all quantifiable values greater than .01 milligrams per liter for the GC/MS fraction-acid compounds.

****Results of quarterly analyses shall be submitted January 28, April 28, July 28, and October 28 for the first 12 months following the effective date of the permit. Thereafter, results of semi-annual analyses shall be submitted on January 28 and July 28 of each year.

+See Supplemental Condition No. 4.

B. STANDARD CONDITIONS

In addition to the specified conditions stated herein, the permittee shall comply with the attached Standard Conditions dated November 3, 1986.

C. SCHEDULE OF COMPLIANCE

1. The permittee shall, within 120 days of issuance of this permit, submit to KDHE a "Toxics Inventory Study" (TIS). The TIS shall conform to the format presented in the attachment titled "Kuhlman Diecasting Company-Stanley, Kansas Toxics Inventory Study".

2. The permittee shall achieve compliance with the final limitations for copper, silver, and biomonitoring specified in this permit on, or before June 4, 1992.

3. The permittee shall submit progress reports to KDHE every 6 months with the first report due 6 months from the date of issuance of this permit. The reports shall outline steps taken to achieve compliance with the final effluent limitations specified in this permit.

D. SUPPLEMENTAL CONDITIONS

1. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301 (b)(2), (C), and (D), 304 (b)(2), and 307 (a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

   a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit, or

   b. Controls any pollutant not limited in the permit.

   The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

2. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:

   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (1) One hundred micrograms per liter (100 μg/l);

      (2) Two hundred micrograms per liter (200 μg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

      (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application.

   b. That any activity has occurred or will occur which result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit if that discharge will exceed the highest of the following notification levels".

      (1) Five hundred micrograms per liter (500 μg/l);

      (2) One milligram per liter (1 mg/l) for antimony;

      (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application.

3. In the event the Environmental Protection Agency amends or promulgates the BPT, BAT, and/or BCT effluent guideline limitations for a specific Point Source Category or any of the subcategories covering your industry, this permit will be modified to incorporate the new limitation(s).

D. SUPPLEMENTAL CONDITIONS (Cont.)

4. The permittee shall perform acute toxicity tests in accordance with the procedures outlined in the document titled "The KDHE Aquatic Toxicity Testing (Bioassessment) Protocol". The toxicity testing shall be performed at a dilution ratio of 7:1 (7 parts dilution water:1 part whole effluent). Dilution water must consist of a synthetic, controlled solution as specified in the referenced protocol. (Note: If the mortality of the control organisms for any test exceeds 10%, the test shall be considered invalid and shall be repeated.)

   Should any acute toxicity test performed at the prescribed 7:1 dilution ratio determine the permittee's effluent exhibits statistically significant acute toxicity at the 95% confidence interval: 1. the effluent shall be considered toxic, and shall be considered a permit violation; 2. the permittee shall notify KDHE within two working days of receipt of the test results; and 3. the permittee shall initiate a replicate test. Results of the original and replicate tests shall be submitted to KDHE immediately upon receipt by the permittee.

5. The permittee shall, within 90 days of issuance of this permit, submit to KDHE a report detailing a proposed methodology for conducting a mixing zone study of the permittee's discharge to the Big Blue River. Within 90 days of approval of the report, the permittee shall implement a mixing zone study which adheres to the methodology specified in the approved report and submit the results to KDHE. The study shall determine the distance downstream from the permittee's outfall where complete mixing takes place. Based on the results of the study, the permit may need to be reopened for revision.

EPA Ralph Summers

State of Kansas

Mike Hayden, Governor

Department of Health and Environment

Division of Environment

Stanley C. Grant, Ph D , Secretary

Forbes Field, Bldg. 740, Topeka, KS 66620-0002

(913) 296-1535

FAX (913) 296-6247

RECEIVED
AUG 27 1990
WATR - ACM

August 23, 1990

Kuhlman Diecasting Co.
164th & Mission Rd.
P.O. Box 23218
Stanley, Kansas 66223

Re: Kansas Water Pollution Control
Permit No. I-MO26-PO01

Gentlemen:

Enclosed please find an attachment that should be attached to your recently issued/modified Kansas Water Pollution Control Permit No. I-MO26-PO01.

If you should have any questions please call me at (913)296-5519.

Sincerely,

Bethel L. Spotts bb

Bethel L. Spotts
Permit Clerk
Technical Services Section
Bureau of Water

Enclosure
cc: Northeast District

BLS:bb

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TOXICS INVENTORY STUDY

I. FACILITY AND PROCESS DESCRIPTION

A. Background information

1. Past and present ownership

2. Incorporation date of parent company

3. Date the facility began production

4. Additional pertinent data

B. Brief description of the facility

1. Types of manufacturing performed

a) Casting
(1) Zinc
(2) Other

b) Plating
(1) Copper
(2) Nickel
(3) Chromium
(4) Other

c) Other

2. Volume of raw material(s) handled (indicate units)

a) Casting
(1) Zinc
(2) Other

b) Plating
(1) Copper
(2) Nickel
(3) Chromium
(4) Other

c) Other

3. Volume of finished product (indicate units)

a) Casting
(1) Zinc
(2) Other

b) Plating
(1) Copper
(2) Nickel
(3) Chromium
(4) Other

c) Other

4. Brief description of the industrial processes

a) Schematic of the overall process

b) Written description of the overall facility processes.

c) Seasonal fluctuations of various processes

d) Water source
(1) Supplier (or supply if on-site treatment practiced)
(2) Source water or raw water quality
(3) Post-treatment quality (if on-site treatment practiced)
(4) Quantity used

II. POTENTIALLY TOXIC MATERIALS

A. List information on chemicals used in the facility (including water and wastewater treatment) as follows:

1. Chemical name, quantity and use

2. Material safety data sheets (MSDS), or other toxicity information for chemicals identified

3. Alternate chemicals which could be substituted and are less toxic

B. List compounds potentially formed by process reactions (including water and wastewater treatment) as follows.

1. Compound name and approximate quantity

2. Location in processing scheme where formed and the waste stream receiving this material

III. HOUSEKEEPING MEASURES

A. List current measures taken to reduce entrance of toxics to wastewater in the following areas:

1. Facility operating procedures for leaks, spills, etc.

2. Chemical and material storage areas

3. Materials handling (i.e. between various plating and wash tanks)

4. Hazardous materials disposal

5. Non-hazardous materials disposal

6. Laboratory waste disposal

7. Equipment cleaning and floor washing

8. Other

B. List additional measures which could potentially reduce entrance of toxics to wastewater in the following areas:

1. Facility operating procedures for leaks, spills, etc.

2. Chemical material storage areas

3. Materials handling (i.e. between various plating and wash tanks)

4. Hazardous materials disposal

5. Non-hazardous materials disposal

6. Laboratory waste disposal

7. Equipment cleaning and floor washing

8. Other

IV. WASTEWATER TREATMENT FACILITY(S)

A. Briefly describe the wastewater sources

1. Dedicated wastewater lines

2. Floor drains, sumps, pits, channels, etc.

a) Intentional waste

b) Unintentional waste

3. Vessel drains

4. Stormwater runoff

5. Other

B. Summarize effluent data from the past 3 years

1. Note when major modifications were made to the wastewater treatment system.

2. Note any significant production or process changes that would impact wastewater quality or quantity.

C. Briefly describe the existing wastewater treatment facility(s)

1. Schematic of the overall process

2. Written description of the overall process

3. Written description of individual unit processes

4. Operational flexibility of individual units

5. Operational control exercised on individual units

a) Describe how in-plant and wastewater effluent monitoring is utilized

b) Describe schedule utilized in performing in-plant and wastewater effluent monitoring

6. Volume of water treated

a) Average month

b) Peak month

c) Minimum month

7. Mass balance for all toxics entering and exiting the treatment process

D. List technical data for each unit process

1. Hydraulic capacity

a) Average design

b) Peak design

2. Influent constituent concentrations

3. Theoretical removal efficiency

4. Measured removal efficiency

E. List technical data for the overall wastewater treatment process

1. Hydraulic capacity

   a) Average design

   b) Peak design

2. Influent constituent concentrations

3. Theoretical removal efficiency

4. Measured removal efficiency

F. List measures taken to optimize the wastewater treatment facility(s) operation within the last 3 years

G. List measures which could further optimize the wastewater treatment facility(s) operation

1. Automation

2. Process modification

3. Other

ATTACHMENT O

CHRONOLOGY OF WWTP DISCHARGE AND ANALYTICAL RESULTS

CHRONOLOGY OF WWTP DISCHARGE AND ANALYTICAL RESULTS
KUHLMAN DIECASTING CO. REMOVAL SITE
164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
/ /	0.030 M	0.360 M	2.770 M	0.050 M	0.700 M	2.100 M	0.350 M	1.400 M	1.200 M	0.050 M	15.000 M	60.000 M	2.130 M	0	NPDES' DAILY MAXIMUM DISCHARGE LIMITS - pH BETWEEN 6-9
/ /		0.260 A	1.710 A						0.650 A	0.020 A	10.000 A	31.000 A		0	NPDES' DAILY AVERAGE DISCHARGE LIMITS
/ /														0	
/ /														0	
08/15/91	0.010 U	0.005 U	0.262	NR	0.0697	0.020 U	0.050 U	0.0315	0.057	NR	NR	NR	NR	0	NO DISCHARGE - TRIAL RUN
08/29/91	0.0002 U	0.004 U	0.088	0.013	0.140	0.081	0.002 U	0.052	0.0291	198	1.0	10.0 U	0.021	0	NO DISCHARGE - TRIAL RUN - COMPOSITE SAMPLE
09/06/91	NR	NR	NR	NR	NR	NR	NR	NR	0.058	0.0086	NR	NR	NR	0	NO DISCHARGE - RE-ANALYZED ABOVE SAMPLE
09/09/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	10100	DICHARGED TESTED WATER - pH ADJUSTED TO LIMITS
09/10/91	0.010 U	0.005 U	0.010 U	NR	0.010 U	0.020 U	0.050 U	0.0345	0.006 U	NR	NR	NR	NR	28400	DISCHARGED WWTP WATER, AVG pH=7.8 SAMPLE COLLECTED IN RIVER UPSTREAM
09/10/91	0.010 U	0.005 U	0.0516	NR	0.0222	0.0296	0.050 U	0.020 U	0.020	NR	NR	NR	NR	0	SAMPLE COLLECTED IN RIVER @ DISCHARGE POINT
09/10/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	SAMPLE COLLECTED IN RIVER UPSTREAM BOD=3 MG/L, COD=18.4 MG/L
09/10/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	SAMPLE COLLECTED IN RIVER @ DISCHARGE BOD=2.6 MG/L, COD=29.5 MG/L
09/10/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	SAMPLE COLLECTED IN RIVER DOWNSTREAM BOD=2.4 MG/L, COD=20.2 MG/L

CHRONOLOGY OF WWTP DISCHARGE AND ANALYTICAL RESULTS
KUHLMAN DIECASTING CO. REMOVAL SITE
164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
09/13/91	0.010 U	0.005 U	1.620	NR	0.220	0.202	0.050 U	0.162	0.035	NR	NR	0.010 U	NR	0	NO DISCHARGE, RECIRCULATION - WWTP WATER SAMPLE
09/16/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	40500	DISCHARGED WWTP WATER - pH W/IN LIMITS
09/17/91	0.010 U	0.005 U	1.400	NR	0.275	0.352	0.050 U	0.109	0.236	NR	NR	2330 I	NR	7800	DISCHARGED WWTP WATER - AVG pH=7.0
09/18/91	0.010 U	0.005 U	1.180	NR	0.195	0.189	0.050 U	0.0745	0.286	NR	NR	NR	NR	2800	DISCHARGED WWTP WATER - AVG pH=7.5
09/19/91	0.010 U	0.005 U	1.030	NR	0.263	0.408	0.050 U	0.143	0.152	NR	NR	NR	NR	17900	DISCHARGED WWTP WATER - AVG pH=7.8
09/20/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	14800	DISCHARGED WWTP WATER - pH W/IN LIMITS
09/23/91	0.003 U	0.003 U		0.023	0.280	0.290	0.033 U	0.170	0.024		1.0	U 40.0	NR	8300	DISCHARGED WWTP WATER - pH APPROX. 7 - COMPOSITE SAMPLE
09/24/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	5800	DISCHARGED WWTP WATER - pH W/IN LIMITS
09/26/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	2500	DISCHARGED WWTP WATER - pH W/IN LIMITS
09/27/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	1800	DISCHARGED WWTP WATER - AVG pH=7.5
09/28/91	0.010 U	0.005 U	0.545	NR	0.257	0.206	0.050	0.171	0.151	NR	NR	NR	NR	1100	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/04/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	6500	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/05/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	9600	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/07/91	0.010 U	0.005 U	0.415	NR	0.297	0.848	0.050 U	0.193	0.149	NR	NR	10.1	NR	0	NO DISCHARGE, RECIRCULATION

CHRONOLOGY OF WWTP DISCHARGE AND ANALYTICAL RESULTS
KUHLMAN DIECASTING CO. REMOVAL SITE
164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
10/10/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	6200	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/11/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	8900	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/15/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	9100	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/16/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	17600	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/17/91	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**15100**	**DISCHARGED WWTP WATER - pH W/IN LIMITS**
10/18/91	**0.010 U**	**0.005 U**	**0.866**	**NR**	**0.364**	**1.210**	**0.050 U**	**0.173**	**0.596**	**NR**	**NR**	**NR**	**NR**	**8400**	**DISCHARGED WWTP WATER - pH APPROX 6.62**
10/19/91	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**20550**	**DISCHARGED WWTP WATER - pH W/IN LIMITS**
10/21/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	21600	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/25/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	16800	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/26/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	14700	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/28/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	18000	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/29/91	0.010 U	0.005 U	0.590	NR	0.495	0.615	0.050 U	0.129		NR	NR	NR	NR	0	NO DISCHARGE, RECIRCULATION - pH W/IN LIMITS
10/30/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	16000	DISCHARGED WWTP WATER - pH W/IN LIMITS
10/31/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	16800	DISCHARGED WWTP WATER - pH W/IN LIMITS

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164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
11/01/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	21600	DISCHARGED WWTP WATER - pH W/IN LIMITS
11/02/91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	8500	DISCHARGED WWTP WATER - pH W/IN LIMITS
11/06/91	0.010 U	0.005 U	4.540	NR	0.488	0.987	0.050 U	0.169	0.132	NR	NR	NR	NR	5400	DISCHARGED WWTP WATER - pH W/IN LIMITS
12/03/91	NR	NR	NR	ND	<1.0 *	NR	NR	NR	NR	NR	NR	NR	NR	6000	DISCHARGED WWTP WATER - pH W/IN LIMITS
12/06/91	**NR**	**NR**	**ND**	**ND**	**0.350**	**NR**	**NR**	**NR**	**ND**	**NR**	**NR**	**NR**	**NR**	**3600**	**DISCHARGED WWTP WATER - AVG pH=6.75**
12/07/91	**NR**	**NR**	**NR**	**ND**	**0.550**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**4800**	**DISCHARGED WWTP WATER - AVG pH=7**
12/09/91	**NR**	**NR**	**NR**	**ND**	**<0.700 ***	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**<10.0**	**NR**	**16000**	**DISCHARGED WWTP WATER - pH W/IN LIMITS**
12/10/91	0.0192	0.005 U	1.890	0.010 U	0.569	0.738	0.050 U	0.165	0.077	0.003 U		4.50	NR	16200	DISCHARGED WWTP WATER - pH=6.59 - COMPOSITE SAMPLE
12/11/91	NR	NR	NR	ND	<0.700 *	NR	NR	NR	NR	NR	NR	NR	NR	11000	DISCHARGED WWTP WATER - AVG pH=6.3
12/12/91	NR	NR	ND	ND	<0.700 *	NR	NR	NR	NR	NR	NR	NR	NR	16200	DISCHARGED WWTP WATER - pH W/IN LIMITS
12/13/91	NR	NR	NR	ND	0.035	NR	NR	NR	NR	NR	NR	NR	NR	9000	DISCHARGED WWTP WATER - pH W/IN LIMITS
12/14/91	NR	NR	NR	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR	3900	DISCHARGED WWTP WATER - AVG pH=7
12/16/91	NR	NR	NR	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR	5500	DISCHARGED WWTP WATER - AVG pH=7.8
12/17/91	NR	NR	NR	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR	9100	DISCHARGED WWTP WATER - AVG pH=7.9

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KUHLMAN DIECASTING CO. REMOVAL SITE
164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
12/18/91	NR	NR	NR	<0.050 *	<0.700 *	NR	NR	NR	NR	NR	NR	NR	NR	10000	DISCHARGED WWTP WATER - pH W/IN LIMITS
12/19/91	0.010 U	0.005 U	0.112	0.010 U	0.513	0.227	0.050 U	0.020 U	0.115	0.016			NR	10800	DISCHARGED WWTP WATER - pH=5.4. COMPOSITE SAMPLE
12/20/91	NR	NR	0.01	ND	0.32	NR	NR	NR	NR	NR	NR	NR	NR	11550	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/02/92	NR	NR	NR	<0.050 *	<0.700 *	NR	NR	NR	NR	NR	NR	NR	NR	10000	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/03/92	NR	NR	NR	ND	<0.700 *	NR	NR	NR	NR	NR	NR	NR	NR	14700	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/04/92	NR	NR	NR	<0.050 *	<0.700 *	NR	NR	NR	NR	NR	NR	NR	NR	13250	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/06/92	NR	NR	NR	ND	0.065	NR	NR	NR	NR	NR	NR	NR	NR	13100	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/07/92	NR	NR	NR	ND	0.600	NR	NR	NR	NR	NR	NR	NR	NR	8000	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/08/92	NR	NR	NR	ND	0.0385	NR	NR	NR	NR	NR	NR	NR	NR	15300	DISCHARGED WWTP WATER - pH=6.77
01/09/92	NR	NR	NR	ND	0.180	NR	NR	NR	NR	NR	NR	NR	NR	8000	DISCHARGED WWTP WATER - pH=7.5
01/10/92	NR	NR	NR	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	7200	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/11/92	NR	NR	NR	ND	0.400	NR	NR	NR	NR	NR	NR	NR	NR	5400	DISCHARGED WWTP WATER - pH W/IN LIMITS
01/13/92	NR	NR	NR	ND	0.400	NR	NR	NR	NR	NR	NR	NR	NR	18000	DISCHARGED WWTP WATER - AVG pH=7
01/14/92	NR	NR	NR	ND	0.400	NR	NR	NR	NR	NR	NR	NR	NR	4800	DISCHARGED WWTP WATER - AVG pH=7
01/15/92	NR	NR	NR	ND	0.250	NR	NR	NR	NR	NR	NR	NR	NR	15900	DISCHARGED WWTP WATER - AVG pH=7

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DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
01/16/92	NR	NR	NR	ND	0.280	NR	NR	NR	NR	NR	NR	NR	NR	13000	DISCHARGED WWTP WATER - pH=6.5
01/17/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	21000	DISCHARGED WWTP WATER - AVG pH=6.9
01/18/92	NR	NR	<0.150 *	ND	0.220	NR	NR	NR	NR	NR	NR	NR	NR	14800	DISCHARGED WWTP WATER - pH=6.5
01/20/92	NR	NR	0.110	ND	0.080	NR	NR	NR	NR	NR	NR	NR	NR	11700	DISCHARGED WWTP WATER - pH=7.8
01/21/92	NR	NR	0.150	ND	0.265	NR	NR	NR	NR	NR	NR	NR	NR	15300	DISCHARGED WWTP WATER - pH=7.0
01/22/92	NR	NR	0.120	ND	0.140	NR	NR	NR	NR	NR	NR	<5.0	NR	15300	DISCHARGED WWTP WATER - pH=7.0
01/23/92	NR	NR	0.150	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	3000	DISCHARGED WWTP WATER - pH=7.00
01/28/92	NR	NR	NR	ND	0.150	NR	NR	NR	NR	NR	NR	NR	NR	4600	DISCHARGED WWTP WATER - pH=7.60
01/29/92	NR	NR	NR	ND	0.125	NR	NR	NR	NR	NR	NR	NR	NR	3500	DISCHARGED WWTP WATER - pH=7.20
02/05/92	NR	NR	NR	ND	0.250	NR	NR	NR	NR	NR	NR	NR	NR	6100	DISCHARGED WWTP WATER - pH=6.60
02/10/92	NR	NR	NR	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	1500	DISCHARGED WWTP WATER - pH=7.00
02/11/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	6000	DISCHARGED WWTP WATER - pH=7.00
02/12/92	NR	NR	NR	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	6500	DISCHARGED WWTP WATER - pH=7.00
02/14/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	12000	DISCHARGED WWTP WATER - pH=7.00
02/15/92	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	9000	DISCHARGED WWTP WATER - pH=6.80

CHRONOLOGY OF WWTP DISCHARGE AND ANALYTICAL RESULTS
KUHLMAN DIECASTING CO. REMOVAL SITE
164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
02/17/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	10000	DISCHARGED WWTP WATER - pH=7.00
02/19/92	NR	NR	NR	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	10800	DISCHARGED WWTP WATER - pH=7.00
02/20/92	NR	NR	NR	ND	0.360	NR	NR	NR	NR	NR	NR	NR	NR	5000	DISCHARGED WWTP WATER - pH=6.70
03/07/92	NR	NR	0.010	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	40000	DISCHARGED WWTP WATER - pH=7.00
03/18/92	NR	NR	NR	0.010	NR	NR	NR	NR	NR	NR	NR	NR	NR	60000	DISCHARGED WWTP WATER - pH=7.00
04/08/92	NR	NR	NR	ND	0.600	NR	NR	NR	NR	NR	NR	NR	NR	14400	DISCHARGED WWTP WATER - pH=7.00
04/09/92	NR	NR	NR	ND	0.450	NR	NR	NR	NR	NR	NR	ND	NR	6000	DISCHARGED WWTP WATER - pH=7.00
04/10/92	NR	NR	NR	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	7875	DISCHARGED WWTP WATER - pH=7.00
04/11/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	8100	DISCHARGED WWTP WATER - pH=7.00
04/13/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	11800	DISCHARGED WWTP WATER - pH=7.00
04/14/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	5000	DISCHARGED WWTP WATER - pH=7.00
04/15/92	NR	NR	NR	ND	0.550	NR	NR	NR	NR	NR	NR	NR	NR	4800	DISCHARGED WWTP WATER - pH=7.00
04/20/92	NR	NR	NR	ND	0.180	NR	NR	NR	NR	NR	NR	NR	NR	58000	DISCHARGED WWTP WATER - pH=7.00
04/21/92	NR	NR	NR	ND	0.270	NR	NR	NR	NR	NR	NR	NR	NR	61500	DISCHARGED WWTP WATER - pH=7.00
04/22/92	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	2000	DISCHARGED WWTP WATER - pH=7.00

CHRONOLOGY OF WWTP DISCHARGE AND ANALYTICAL RESULTS
KUHLMAN DIECASTING CO. REMOVAL SITE
164TH MISSION ROAD, STANLEY, KANSAS

DISCHARGE DATE	SILVER (mg/l)	CADMIUM (mg/l)	CHROME (mg/l)	HexCHROME (mg/l)	COPPER (mg/l)	NICKEL (mg/l)	LEAD (mg/l)	ZINC (mg/l)	Tot CN (mg/l)	Free CN (mg/l)	O & G (mg/l)	TSS (mg/l)	TTO (mg/l)	DISCHARGE VOL (GAL)	COMMENT
04/30/92	NR	NR	NR	ND	0.300	NR	NR	NR	NR	NR	NR	NR	NR	3000	DISCHARGED WWTP WATER - pH=7.00
05/01/92	NR	NR	NR	ND	0.450	NR	NR	NR	NR	NR	NR	NR	NR	8000	DISCHARGED WWTP WATER - pH=7.00
05/07/92	NR	NR	NR	ND	0.350	NR	NR	NR	NR	NR	NR	NR	NR	3500	DISCHARGED WWTP WATER - pH=7.00
05/08/92	NR	NR	NR	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	7000	DISCHARGED WWTP WATER - pH=7.00
05/11/92	**NR**	**NR**	**NR**	**ND**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**NR**	**30000**	**DISCHARGED WWTP WATER - pH=7.00**
***** Total *****														**1150525**	

M -- MAXIMUM VALUE
A -- AVERAGE VALUE
NR -- NOT RUN
ND -- NON-DETECTED, ON-SITE TESTING
U -- UNDETECTED BY EPA LAB WITH DETECTION LIMITS
I -- INVALID
* -- DETECTED VALUE; HOWEVER, DUE TO PRECIPITATION FORMED AFTER ADDING TESTING REAGENTS THE ACTUAL CONCENTRATION IS EXPECTED TO BE LOWER THAN READING VALUE
ANALYSIS WAS PERFORMED ON SITE, UTILYZING THE HACH DR/2 SPECTROPHOTOMETER

ATTACHMENT P

SUMMARY OF SAMPLES COLLECTED DURING THE PHASE I REMOVAL ACTION

Water Sample Results

Kuhlman DieCasting Company, Stanley, KS (ug/L or ppb)

A Daily Average S - soluble daily Max

M - Daily Maximum

Free CN

TTO/Cr VI

SAMPLE #	DATE SAMPLED	LOCATION	Ag	Cd	CN	Cr	Cu	Ni	Pb	Zn	O&G	TSS	OTHER/COMMENTS
NPDES			30	260 A 360 M	650 A 1,200 M	1,710 A 2,770 M	700 S	2,100 M	350 M	1,400 M	10,000 A 15,000 M	31,000 A 60,000 M	Free CN 20 & 50. 2,130 M - TTO 50 M - Cr VI
							total						
BG2GK001	8/8/91	BASEMENT EAST	10 u	5u	< 300 (u)	2,130	33.6	470	50 u	1,930	—	—	EPA LAB
BG2GK002	8/8/91	BASEMENT WEST	10 u	5u	<300 (u)	3,420	882	8,650	50 u	6,190	—	—	"
BG2GK003	8/8/91	WWTP	10u	5u	372	1,600	3,730	6,470	50u	3,870	—	—	" - Before treatment
BG2GK004	8/8/91	SETTLING POND	10u	5u	113	10,500	10,500	16,900	50u	6,850	—	—	"
BG2GK005	8/15/91	SETTLING POND	10u	5u	<300 u	10u	61.3	455	50u	66.5	—	—	" resampled surface water
BG2GK006	8/15/91	WWTP	10u	5u	57	262	69.7	20u	50u	31.5	—	—	" - After treatment
BG2GK007	8/29/91	treated WWTP	<.2	<.4.0	29.1	88 cr VI-13	140	81	<2.0	52	mg/L <1.0	mg/L <10.0	TTO: 21 mg/L Free CN: 198 mg/L Keystone lab
BG3GK008	9/6/91	treated WWTP	NA	NA	58 Amenable 49.4 Free CN 8.6	NA	NA	NA	NA	NA	NA	NA	EPA Lab
BG3GK009	9/10/91	Sand filter	10u	5u	.430 mg/l	1,520	300	375	50u	267	NA	NA	EPA LAB
BG3GK010	9/10/91	Basement	10u	5u	.152 mg/l	2.990	367	1880	50u	825	NA	NA	" "
BG3GK011	9/10/91	300' N of Discharge	10u	5u	.006 u	10u	10u	20u	50u	345	NA	NA	" "
BG3GK012	9/10/91	Discharge	10u	5u	.020	51.6	22.2	24.6	50u	20u	NA	NA	" "
BG3GK013	9/10/91	Point A 300' N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BOD COD 18.4 mg/l
BG3GK014	9/10/91	Point B Discharge	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BOD COD 29.5 mg/l
BG3GK015	9/10/91	Point C BOD'S	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	BOD COD 20.2 mg/l
BG3GK016	9/13/91	WWTP	10u	5u	.035	1620	220	202	50u	162	NA	10u	EPA LAB
BG3GK017	9/13/91	Recon H2O	167	5u	7.20	1,260,000	120,000	467,000	50u	84,200	NA	NA	EPA LAB

Water Sample Results
Kuhlman DieCasting Company, Stanley, KS (ug/L or ppb)

Total solids 10/7/91

SAMPLE #	DATE SAMPLED	LOCATION	Ag	Cd	Cn	Cr	Cu	Ni	Pb	Zn	O&G	TSS	OTHER/COMMENTS
BG3GK018	9/17/91	Basement	10u	5u	.147 mg/L	2070	256	1770	50u	906	—	—	EPA LAB
BG3GK019	9/17/91	System Effluent	10u	5u	0.236 mg/L	1400	275	352	50u	109	—	2330	EPA LAB
BG3GK020	9/18/91	Settling pond	[illegible]	5u	.256 mg/L	1180	195	184	50u	745	—	—	EPA LAB
BG3GK021	9/19/91	System Effluent	10u	5u	.152 mg/L	1030	263	408	50u	143	—	—	EPA
BG3GK022	9/19/91 P.M.	System Effluent	[illegible]	5u	0.172 mg/L	915	261	251	50u	136	—	—	EPA
BG3GK023	TANK PIT area #4	9-21-91	19u	5u	0.43 mg/L	136,000	47,900	360,000	2,900	92,700	—	—	EPA
BG3GK024	9/23/91	NPDES Composite	<3	<3	CN 24 Amenable CN <10	Cr^{+6} 23	280	290	<33	170	<1.0 mg/L	40 mg/L	Keystone lab pH 7.10
BG4GK025	9/28/91	SYSTEM EFFLUENT	10u	5u	0.151 mg/L	545	257	206	50u	171	—	—	EPA Lab
BG4GK026	10/1/91	rinsed water fr. storage tanks											EPA LAB for Cr^{+6} 14.7 ppm (before treatment)
BG4GK027	10/3/91	I255-I261	110	<200	<1.0 mg/kg	13,000,000	120,000	310,000	<330	1,400,000	pH <1.0	—	Keystone lab for Metals, TCLP, CN, pH
BG4GK028	"	I301 & I303	<0.68 mg/kg	<0.9 mg/kg	2.7 mg/kg	120 mg/kg	90.0 mg/kg	370 mg/kg	45 mg/kg	2,700 mg/kg	pH 5.24	—	" solids
BG4GK029	"	I358-I383	<3.0	<4.0	<3.9	32,000	7,600	23,000	190	20,000	pH 12.26	—	"
BG4GK030	"	Sludge I358-I383	<26 mg/kg	3.5 mg/kg	2.8 mg/kg	29,000 mg/kg	19,000 mg/kg	45,000 mg/kg	170 mg/kg	3,700 mg/kg	pH 10.32	—	" solids/sludge
BG4GK031	"	Dirt pile outside(s)	<0.73 mg/kg	<0.98 mg/kg	1.4 mg/kg	13,000 mg/kg	340 mg/kg	520 mg/kg	120 mg/kg	11,000 mg/kg	pH 7.52		" solids
BG4GK032	10/4/91	rinsed tank #1		~~5,000u~~ HQ	1.49 mg/L						1st treatment of Cr^{+6}		EPA for Cr^{+6}, CN Cr^{+6} 125,000 ug/L
BG4GK033	10/4/91	rinsed tank #2 & 3	441	5,000u	9.634 mg/L	4,220,000	14,100,000	28,200,000	68,700	1,450,000	1st treatment of Cr^{+6}		" and metals Cr^{+6} 571,000 ug/L
BG4GK034	10/7/91	Primary WWTP	10u	5u	~~56,700~~ 1.0 mg/L	56,700	12,100	162,000	1160	25,500	—	—	EPA lab for Metals, CN
BG4GK035	10/7/91	WWTP effluent	10u	5u	0.149 mg/L	415	297	848	50u	193	—	—	EPA LAB pH = 6.15, TSS = 10.1 mg/L
					85.1% R	99.3% R	97.8% R	99.5% R	>95.6% R	99.3% R	—	—	

Water Sample Results
Kuhlman Die Casting Company, Stanley, KS (ug/l or mg/l)

SAMPLE #	DATE SAMPLED	LOCATION	Ag	Cd	Cn	Cr	Cu	Ni	Pb	Zn	O&G	TSS	OTHER/COMMENTS
BG76K036	10/9/91	TANK #1	—	—	0.314 mg/L	—	—	—	—	—	2nd treatment of Cr^{+6}		EPA LAB Cr^{+6} 1,000 u
BG4GK037	10/9/91	TANK #2	—	—	17.2 mg/L	—	—	—	—	—	2nd treatment of Cr^{+6}		EPA LAB Cr^{+6} 653,100 ug/L
BG4GK038	10/9/91	TANK #3	—	—	3.49 mg/L	—	—	—	—	—	2nd treatment of Cr^{+6}		EPA LAB Cr^{+6} 1,000 u
BG4GK039	10/10/91	TANK #2	10,000 u	5,000 u	~~7,770,000~~	7,770,000	28,000,000	55,000,000	171,000	2,690,000	3rd treatment of Cr^{+6}		EPA LAB Cr^{+6} 1,000 u
BG5GK040	10/15/91	RINSE TANK	11.6	14.6	20.5 mg/L	214,000	33,800	87,600	13,100	42,000	—	—	EPA LAB Cr^{+6} (dem. VAT) 65,400 ug/L
BG5GK041	10/18/91	WWTP effluent	0.01 u	0.005 u	0.596 mg/L	866	364	1210	0.05 u	173	—	4,840? mg/L	EPA LAB Arsenic 0.05 u pH 6.62
BG5GK042	10/21/91	RINSE TANK	—	—	3.0 mg/L	Cr^{+6} 268,000		—	—	—	—	—	EPA LAB - Cr^{+6} after treatment
BG5GK043	10/24/91	FLOOR sweepings	0.1 u ug/kg	0.094 ug/kg	—	205 ug/kg	—	—	0.5 u ug/kg	—	Arsenic 0.1 u; Ba 0.2; Se 0.5 u		TCLP EPA Lab ug/kg
BG5GK044	10/24/91	Basement sludge	0.01 u	0.013	3.07 mg/kg	0.12	—	—	0.059	—	Ar: 0.05 u; Ba 0.74; Se 0.05 u		TCLP EPA LAB ug/kg
BG5GK045	10/24/91	Spent latex 624	200 u	1000 u	cancelled	60,000 u	11,800	50,400	1000 u	5,140,000	~~Ar: 0.05 u; Ba 0.33; Se: 0.05 u~~		" ~~ug/kg~~ Ar 1000 u
BG5GK046	10/24/91	Latex 624 product	200 u	1000 u	cancelled	340	938	400 u	1000 u	22,200			Ar 1000 u ~~TCLP metals~~
BG5GK047	10/25/91	air duct fluff	0.01 u	0.037	—	0.01 u	—	—	0.05 u	—	Ar: 0.05 u; Ba 0.38; Se: 0.05 u		EPA ug/kg TCLP metals
BG5GK048	10/25/91	PPE	0.01 u	0.005 u	0.64 mg/kg	1.38	—	—	0.112	—	Ar: 0.05 u; Ba 0.51; Se: 0.05 u		EPA ug/kg TCLP metals
BG6GK049	10/29/91	WWTP effluent pipe	10 u	5.0 u	[illegible]	590	495	615	50 u	129	—	—	Ar 50 u EPA
BG6GK050	10/29/91	pink VAT group	100 u	50 u	0.003 u	5,370	870	493	500 u	6,130	—	—	Ar: 710 Non detect from BNA's EPA
BG6GK051	10/29/91	brown group/VAT 2	100 u	50 u	0.003 u	443	5,860	10,000	624	50,800	—	—	Ar: 681 Non detect of BNA's
BG6GK052	10/29/91	insol oil/VAT 3	100 u	50 u	0.003 u	900	1,310	2100	894	61,200	—	—	Ar: 1200 u Non detect BNA's "
BG6GK053	10/29/91	console skim/tank 4	100 u	50 u	16.1 mg/kg	87,000	23,100	33,400	2,200	6,880	—	—	Ar: 500 u Non detect BNA's "
BG6GK054	10/31/91	[illegible] 5	10,000 u	5,000 u	—	9,540,000	80,500	127,000	64,000	587,000	—	—	Cr^{+6} - 114,000 ug/l Ar - not run

Water Sample Results
Kuhlman Die Casting Company, Stanley, KS

SAMPLE #	DATE SAMPLED	LOCATION	Ag	Cd	Cn	Cr	Cu	Ni	Pb	Zn	O&G	TSS	OTHER/COMMENTS
BG6GK055	10/31/91		—	—	—	—	—	—	—	—	—	—	Cr^{+6} - 1,370 ug/l
BG6GK056	11/4/91	waste pile	.01 mg/l	.005 u	0.005 u	43.6	—	—	.058	—	—	—	TCLP metals + CN
BG6GK057	11/4/91	drying sludge	.01 mg/l	.037	827 mg/kg	1.69	—	—	.567	—	—	—	TCLP metals + CN.
BG6GK058	11/5/91	Drum grp #1	.01 mg/l	.005 u	73.8 mg/kg	.01 u	—	—	1.65	—	Ar - 3.1, Ba .013, + Se .203		TCLP metals + CN
BG6GK059	11/5/91	Drum grp #2	.01 mg/l	.005 u	116 mg/kg	.362	—	—	.801	—	Ar - 1.72, Ba .125, + Se .165		TCLP metals + CN
BG6GK060	11/6/91	WWTP effluent	10 u ug/l	5 u	.132 mg/l	4540 ug/l	488 ug/l	987 ug/l	50 u	169 ug/l	Ar - 50 u	—	Total metals + CN
BG6GK061	11/6/91	XRF	.2 mg/kg	.1 u	—	13.5	17	15.4	13.4	58.9	Ar - 10u % Solids = 77.9		
BG6GK062	11/6/91	XRF	.277 mg/kg	.1 u	—	607	912	4860	101	2440	Ar - 13.7 % Solids = 85.3		
BG6GK063	11/6/91	XRF	.2 u mg/kg	.673	—	353	471	2050	186	2140	Ar = 10 u % Solids = 75.6		
BG6GK064	11/6/91	XRF	.2 u mg/kg	.1 u	—	226	168	328	25.0	549	Ar = 10 u % Solids = 78.8		
BG6GK065	11/6/91	XRF	.2 u mg/kg	.1 u	—	32.4	68.1	58.1	52.1	2210	Ar = 10 u % Solids = 86.8		
BG6GK066	11/6/91	XRF	.218 mg/kg	.1 u	—	586	860	3720	39.8	1270	Ar = 10 u % Solids = 81.0		
BG6GK067	11/6/91	XRF	.2 u mg/kg	.1 u	—	45.7	36.7	70.0	24.5	227	Ar = 10 u % Solids = 86.1		
BG6GK068	11/6/91	XRF	.2 u mg/kg	.874	—	221	164	691	162	4340	Ar = 10 u % Solids = 86.2		
BG6GK069	11/6/91	XRF	.269 mg/kg	7.83	—	334	796	655	209	6240	Ar = 58.2 % Solids = 71.1		
BG6GK070	11/6/91	XRF	.327 mg/kg	1.68	—	506	604	1560	94.1	18000	Ar = 10.6 % Solids = 86.7		
BG6GK071	11/8/91	TANK #4	—	—	1.89 mg/L	—	—	—	—	—	—	—	Consolidated c chem
BG7GK072	11/11/91	Basement Area W/O Foundation	.2 u mg/kg	.887	1.5 mg/kg	343	126	384	31.2	1,300,000 mg/kg	Ar = 10 u % Solids = 78.1		Total Metals + Total CN
BG7GK073	11/11/91	Pile of w.1 in East end of Area #3	.05 u mg/l	.005	5.01 mg/kg	.019	—	—	.05 u	—	Ar = .054, B = .721 Se = .054		TCLP metals + CN

Water Sample Results
Kuhlman Die Casting Company, Stanley, KS

SAMPLE #	DATE SAMPLED	LOCATION	Ag	Cd	Cn	Cr	Cu	Ni	Pb	Zn	O&G	TSS	OTHER/COMMENTS
BG1GK074	11/11/91	SAND FILTER	.01u mg/l	.009	2.88 mg/kg	.597	—	—	.05u	—	Ar: .05u Se: .054	Ba: .370	TCLP METALS + CN
BG1GK075	11/19/91	TROUGH AREA OF WWTP	17.3 mg/l	5u	(1.3 mg/l)	8870 mg/l	2630 mg/l	1150 mg/l	50u	218 mg/l		Cr+6 2080 mg/l	TOTAL METALS, CN, + Hexavalent Cr
BG5GK076	12/3/91	Floor sweepings + flyash in drum [illegible]	.01u mg/l	.005u	240 mg/kg	35.7 mg/l	—	—	.050u	—	Ar: .0802 Se: .050u	Ba: .207 Hg: .00360	+ Mercury TCLP METALS + CN
BG6GK077	12/3/91	Solids from inside vats of APL	.010u mg/l	.005u	11.0 mg/kg	9.75	—	—	.050u	—	Ar: .118 Se: .050u	Ba: .129 Hg: .00119	+ MERCURY TCLP METALS + CN
BG8GK078	12/3/91	Collected from [illegible] "CLEAN"	.010u mg/l	.005u	4.80 mg/kg	29.8	—	—	.105	—	Ar: .106 Se: .050u	Ba: .163 Hg: .00503	+ Mercury TCLP Metals + CN
BG9GK079	12/3/91	Collected from 3 jars of wash [illegible]	.011 mg/l	.005u	710 mg/kg	17.3	—	—	.188	—	Ar: .107 Se: .124	Ba: .0498 Hg: .00874	+ Mercury TCLP METALS + CN
BG8GK080	12/3/91	Composite sample from [illegible]	.010u	.005u	9.10 mg/kg	107	—	—	.253	—	Ar: 1.43 Se: .050u	Ba: .0784 Hg: .0121	+ Mercury TCLP METALS + CN
BG8GK081	12/10/91	NPDES Effluent Water Sample	19.2 mg/l	5u	.077 mg/l total .005u free CN	1890 mg/l	569 mg/l	738 mg/l	50u	165 mg/l	Ar: 50u pH: 6.54 TSS: [illegible] mg/l	Cr+6 = 10u mg/l	TSS, pH, [illegible] BOD5, Total Cd, Total Cr, Total Cu, Total Ni, Total Ag, Total Zn, Total Cr, Total Cu, Free CN, Oil & Grease
BG8GK082	12/10/91	VACUUM SANDS Break room + [illegible]	1.31 mg/kg	61.9	71.2 mg/kg	3960	4490	4310	1090	129,000	Ar: 27.7	—	Total Metals Total CYANIDE
BG8GK083	12/10/91	LANDFILL AREA PLATING & DIECAST AREAS SWEEP VACUUM SANDS	.2u mg/kg	10.6	5.00 mg/kg	135	343	1,070	1,020	539,000	Ar: 6.17	—	Total Metals Total CYANIDE
BG8GK084	12/10/91	VACUUM SANDS Railway outside sandblast room + the [illegible]	53.4 mg/kg	53.7	76.7 mg/kg	1070	1750	7,620	7,860	83,600	Ar: 31.5	—	Total Metals Total CYANIDE
BG8GK085	12/13/91	TANK #3 Pure Liquid (treated)	—	—	—	—	—	—	—	—		—	Oil + Grease
BG8GK086	12/19/91	NPDES Water Sample	10u	5.0u	0.115	112	513	227	50u	20u	As: 50u pH: 5.4 Total CN 0.115	Cr+6 10u Free CN 0.016	SAME ANALYSIS AS BG8GK081
BG8GK087	12/19/91	COMPOSITE SAMPLE OF WOOD CUTTINGS	.010u	.005u	5.93 mg/kg	3.50 mg/l	—	—	.05u	—	As: 4.29 Se: .05u	Ba: .318	
BG9GK088	1/4/92	PAINT COATED VISCOUS LIQUID DRUM #I 689	100u	50u	0.40 mg/l	100u	1,150	610	500u	1,530	Ar 500u	—	EPA LAB (total CN & metals)
BG9GK089	1/6/92	Brown oily viscous liquid [illegible] I 389, [illegible] Fuel #FC-2	100u	50u	0.30u mg/l	100u	275	200u	500u	895	Ar 500u	—	"
BG9GK090	1/8/92	green poly tank (EPA)	—	—		—	—	—	—	—	—	—	EPA LAB (total CN)
BG9GK091	1/8/92	NPDES water sample											EPA LAB (NPDES parameters)
BG9GK092	1/10/92	Sludge sample from tank pit area	3.16 mg/kg	1.0u		7,700 mg/kg	5,430	14,100	1,010	5,450			Total Metals, CN

Water Sample Results
Kuhlman DieCasting Company, Stanley, KS

SAMPLE #	DATE SAMPLED	LOCATION	Ag	Cd	Cn	Cr	Cu	Ni	Pb	Zn	O&G	TSS	OTHER/COMMENTS
BGAGK093	2/11/92	Roll of insulation north of warehouse											Asbestos
BGAGK094	2/11/92	Refractory brick piled south of warehouse											Total Metals TCLP Metals
BGAGK095	2/11/92	Tank sediment from tank in parking lot											Total Metals TCLP Metals
BGAGK096	2/13/92	Dust from upstairs of warehouse											TCLP Metals
BGBGK097	2/21/92	CCl_2F_2	←				NA					→	CCl_2F_2 (suspected) cylinder
BGCGK098	3/18/92	Concrete floor comp.			Analyze	for	Cr^{+6}	only					~~CCl_2F_2 cylinder~~ ~~suspected~~
BGCGK099	3/18/92	"				"							
BGCGK100	3/27/92	"				"							
BGCGK101	4/7/92	"				"							
BGCGK102	4/7/92	Concrete floor grab				"							

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

[illegible] ACTNO: BG2GK SAMNO: 001 QCC: _ MEDIA: water PL: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE: __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT: LONGITUDE: ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG: [illegible] /91 [illegible] EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 8/8/91 07:45 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME
1 Lt. Cubitaner	None		

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from Basement East location:

4 containers (HQV)

Parameters Requested

Total Metals:

Cr - chrome
Cd - cadmium
Cu - copper
Pb - lead
Ni - nickle
Ag - silver
Zn - zinc
Cn - cyanide
Oil & Grease
TSS: Total Suspended Solids

3 day turn around requested

SAMPLE COLLECTED BY Jim Kudlinski

RAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 1 ACTNO: BG2GK SAMNO: 002 QCC: _ MEDIA: water PI: CURRY, L.

ACTIVITY DES: FUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: 037 REF LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __:__ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 08/ 8/91 07 95 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

1 Lt. Cubitainer None

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from Basement West location.

4 containers HQV

Parameters Requested

Total Metals:
Cr - Chrome
Cd - Cadmium
Cu - copper
Pb - lead
Ni - nickle
Ag - silver
Zn - Zinc
Cn - Cyanide
Oil & Grease
TSS: Total Suspended Solids

3 day turn around requested

SAMPLE COLLECTED BY Jim Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: AG2GK SAMNO: 003 QCC: _ MEDIA: water FI: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: 037 REF LONGITUDE ___ __ __

SAMPLE DES: _____
LOCATION: STANLEY KS
CASE/BATCH/SMO: _____/_/_____ LAB: ___
STORET/SAROAD NO: _____

	DATE	TIME	FROM REF PT
BEG.	/ /91	__ __	EAST: ____
END:	08/02/91	07 45	NORTH: ____
			DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAMF

1 Lt. Cubitainer

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from WWTP influent chamber.

4 containers

Parameters Requested

Total Metals:

Cr - chrome
Cd - cadmium
Cu - copper
Pb - lead
Ni - nickle
Ag - silver
Zn - zinc
Cn - cyanide
Oil & Grease
TSS: Total Suspended Solids

3 day turn around requested

SAMPLE COLLECTED BY [signature]

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: BG2GK SAMNO: 004 QCC: _ MEDIA: water FI: CURRY, T.

ACTIVITY DES: FUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: 437 REF LONGITUDE: ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 08/13/91 06 45 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
3 ~~4~~ 1L containers	None		

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from settling basin N.W. of facility.

3 containers HQW

Parameters Requested

Total Metals:

Cr - chrome
Cd - cadmium
Cu - copper
Pb - lead
Ni - nickle
Ag - silver
Zn - zinc
Cn - cyanide
Oil & grease
~~TSS - Total Suspended Solids~~ JK

SAMPLE COLLECTED BY Jim Kudlinski

DRAFT

FIELD SHEET

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: BOGK SAMNO: 005 QCC: _ MEDIA: Water FI: CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 037 FI LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 08/15/91 06 45 NORTH: ____
STORET/SARDAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGF	NAME
1 - 32 oz bottle			
3 - 1 lt. cubitainers.			

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from settling basin.
NW corner of building.

PARAMETERS REQUESTED

Total Metals:

Cr - chrome
Cd - cadmium
Cu - copper
Pb - lead
Ni - Nickle
Ag - silver
Zn - Zinc
Cn - Cyanide
Oil & Grease

TSS: TOTAL SUSPENDED SOLIDS

SAMPLE COLLECTED BY Jim Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO BOGK SAMNO 006 QCC: _ MEDIA water PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 08/15/91 08 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
1-32oz jar			
2-1lt. cubitainers			

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from

WWTP

PARAMETERS REQUESTED

TOTAL METALS:

Cr - chrome
Cd - cadmium
Cu - copper
Pb - lead
Ni - nickle
Ag - silver
Zn - zinc
Cn - cyanide
Oil & Grease

SAMPLE COLLECTED BY Hiev Vu

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F. 21 ACTNO: BOGK SAMNO: 007 QCC: _ MEDIA: water PI: CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM: 437 REF LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS REG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 8/29/91 15 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME
see below			

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from WWTP effluent

container	preservative	anal. parameters requested
comp 1 liter cubitainer	none	Total suspended solids, pH
comp __ liter cubitainer	HNO_3 (pH<2)	Metals total Cr, total Cd, total Pb, soluble Cu, total Ni, total Ag, total Zn
comp 1 liter cubitainer	none	Hexavalent Cr
grab 1 liter cubitainer	NaOH (pH>12)	Total CN
grab 1 liter cubitainer	None	Free CN
grab 1 32 oz amber	H_2SO_4 (pH<2)	Oil and Grease
grab 2 32 oz amber	None	Total toxic organics (BNA)

Quick turnaround time requested
Results by 9/4/91

SAMPLE COLLECTED BY Vu

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: B63GK SAMNO: 008 QCC: _ MEDIA: ~~SOIL~~ Water AQN PI: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT: LONGITUDE ___ __ __

SAMPLE DES: _____
LOCATION: STANLEY KS
CASE/BATCH/SMO: _____/_/_____ LAB: ___
STORET/SAROAD NO: _____

	DATE	TIME	FROM REF PT
BEG	/ /91	__ __	EAST: ____
END	9/6/91	15 35	NORTH: ____
			DOWN: ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from WWTP (TREATED)

* ph = 12.05
* Analytical parameter requested = free cn
  total cn
* 24 hr. turnaround

SAMPLE COLLECTED BY Jim Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: B~~9~~3GK SAMNO: 008 QCC: _ MEDIA: water PI: CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT: LONGITUDE: ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 9/5/91 11 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME
1 L cubitainer	None		

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from WWTP (treated)

* pH = 12.04
* Analytical parameter requested : Free CN
* Quick turnaround requested (24-hr)

SAMPLE COLLECTED BY _____ Vu _____

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

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91 ACTNO: BQ3GK SAMNO: 009 QCC: _ MEDIA ~~SOIL~~ water FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 2/10/91 12 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from sandfilter tank

1 lt. cubitainer pH >12 for CN analysis

1 lt. cubitainer pH <2 for total metal analysis

- Cr
- Cd
- Cu
- Ni
- Ag
- Zn
- Cr6
- Zn
- Pb

SAMPLE COLLECTED BY Vn _____ _____

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII

ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO: BQ3GK SAMNO: 010 QCC: _ MEDIA ~~SOIL~~ Water HQV PI: CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __

LOCATION: STANLEY KS PROJECT NUM: A37 PT. LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT

LOCATION: STANLEY KS BEG: / /91 ____ EAST: ____

CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 9/11/91 0700 NORTH: ____

STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:

CONTAINER PRESERVATIVE MGP NAME

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER: ___ OPERABLE UNIT: ___

Sample collected from the basement

1 lt. cubitaner ph >12 for Cn analysis

1 lt. cubitaner ph <2 for total metals analysis.

- Cr
- Cd
- Cu
- Ni
- Ag
- Cn
- Cr6
- Zn
- Pb

SAMPLE COLLECTED BY Vu

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO: BG3GK SAMNO: 011 QCC: _ MEDIA ~~SOIL~~ Water HQX PI: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM A37 PT LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/10/91 18 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

sample collected from 300' Nof discharge

1 lt. cubitainer ph >12 for cn analysis

1 lt. cubitainer ph <2 for total metals analysis.

- Cr
- Cd
- Cu
- Ni
- Ag
- Cn
- Cr_6
- Zn
- Pb

SAMPLE COLLECTED BY Va

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO: BQ3GK SAMNO: 012 QCC: _ MEDIA ~~SOIL~~ water PI: CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PI: LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PI
LOCATION: STANLEY KS BEG: / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 9/10/91 19 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from discharge area @ river

1 lt. cubitaner ph >12 for Cn analysis

1 lt. cubitaner ph <2 for total metal analysis.

- Cr
- Cd
- Pb
- Cu
- Ni
- Ag
- CN
- Cr6
- Zn

SAMPLE COLLECTED BY Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: 3G3GK SAMNO: Ø13 QCC: _ MEDIA: ~~SOIL~~ water HQN CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/10/91 19 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:
CONTAINER PRESERVATIVE MGP NAME

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample point "A" 300' north of WWTP effluent.

32 oz - BOD ANALYSIS

40 ml VOA - COD ANALYSIS.

SAMPLE COLLECTED BY Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 21 ACTNO: 3G3GK SAMNO: 014 QCC: _ MEDIA ~~SOIL~~ water PI: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: 037 RF LONGITUDE: ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/10/91 1100 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT: ___

Sample point "B" -- WWTP effluent into River

32 oz - BOD analysis

40 ml VOA - COD analysis

SAMPLE COLLECTED BY: Kozlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: 3G3GK SAMNO: 015 QCC: _ MEDIA: ~~SOIL~~ Water HQW PI: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT: LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG: / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 9/10/91 19 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:
CONTAINER PRESERVATIVE MGP NAME

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample Point "C" - - 300' South of WWTP effluent.

32oz - BOD analysis

40ml VOAs - COD analysis

SAMPLE COLLECTED BY Kudlinski

DRAFT

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: 3G3GK SAMNO: 016 QCC: _ MEDIA: ~~SOIL~~ Water HQV PI CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 ____ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 09/13/91 7:30 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

1 Lt cubitaner - ph <2 - metals

1 Lt cubitaner - ph >12 - ~~[illegible]~~ cn.

1 Lt. cubitaner - TSS

Sample collected from WWTP

SAMPLE COLLECTED BY Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: 3G3GK SAMNO 017 QCC: _ MEDIA: ~~SOIL~~ water H2O FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 037 FI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 7/13/91 7 30 NORTH ____
STORET/SARCIAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

1 Lt. container pH < 2 metals

1 lt container pH > 12 cn.

sample collected from Decon water

SAMPLE COLLECTED BY KOWALINSKI

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: 3G3GK SAMNO 018 QCC: _ MEDIA: ~~SOIL~~ Water HQW PI: CURRY, L.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PT: LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/17/91 08 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Basement Water.

1 lt. cubitaner — ph <2 -- total Metals

1 lt. cubitaner — ph >12 -- Cu

SAMPLE COLLECTED BY KUDLINSKI

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

F 91 ACTNO: 3G3GK SAMNO 019 QCC: _ MEDIA: ~~SOIL~~ water PI: CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 037 REF LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/17/91 08 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:
CONTAINER PRESERVATIVE MGP NAME

COMMENTS: FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Effluent

1 lt. cubitaner -- ph <2 -- metals

1 lt. cubitaner -- ph >12 -- cn

1 lt. cubitaner -- T.S.S.

SAMPLE COLLECTED BY Kudlins Z.

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO 3G3GK SAMNO 020 QCC: _ MEDIA ~~SOIL~~ water (HQV) PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 037 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 9/18/91 8 30 NORTH ____
STORET/SARCAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

1 lt. cubitainer -- total metals pH<2

1 lt. cubitainer -- Cn pH>12

1 lt. cubitainer -- TSS

Sample collected from settling basin sump to Somal filter

SAMPLE COLLECTED BY Kudlinski K.

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO 3G3GK SAMNO Ø2 QCC: _ MEDIA ~~SOIL~~ water HQW PI: CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/19/91 8 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

System effluent discharge into river

1 Lt. cubitaner -- ph <2 -- total metals

1 Lt. cubitaner -- ph >12 -- Cn

1 Lt. cubitaner -- T.S.S.

SAMPLE COLLECTED BY Kuhlmann Kr

DRAFT FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO 3G3GK SAMNO 022 QCC: _ MEDIA ~~SOIL~~ Water HQ PI CURRY, [illegible]

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE ___ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 9/19/91 18 00 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

System effluent at River

1 lt. cubitaner -- ph > 12 -- cn

1 lt. cubitaner -- ph < 2 -- total metals

1 lt. cubitaner -- [redacted] -- T.S.S.

SAMPLE COLLECTED BY Kudlis Kur

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACEND 3G3GK SAMNO 023 QCC: _ MEDIA ~~SOIL~~ water FI CURRY, T.

ACTIVITY DES FUHLMAN DIECASTING HQN REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM 037 FI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 9/21/91 09 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from tank pit collection area.

Composite of water and sludge in bottom of pit.

1 lt. cubitainer -- ph > 12 -- Cn analysis

1 lt. cubitainer -- ph < 2 -- total metals analysis

SAMPLE COLLECTED BY Rodlin Shi

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO 3G3GK SAMNO Ø24 QCC: ~~MEDTA~~ ~~SOIL~~ water HQU PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/23/91 17 00 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

1 lt. cubitaner -- pH >12 -- cn analysis

1 lt. cubitaner -- pH <2 -- metals analysis

1 lt. cubitaner -- T. SS. analysis

1 lt. cubitaner -- Oil & Grease analysis.

System effluent.

SAMPLE COLLECTED BY [signature]

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO: 3G4GK SAMNO Ø25 QCC: _ MEDIA ~~SOIL~~ water (HA) PI CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PI
LOCATION: STANLEY KS BEG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 9/28/91 10 30 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from WWTP system effluent.

1 lt. cubitaner -- pH >12 -- cn analysis

1 lt. cubitaner -- ph <2 -- total metals analysis

SAMPLE COLLECTED BY Jim Kuolinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

---

91 ACTNO: BG4GK16SAMNO: QCC: _ MEDIA ~~SOIL~~ water FL: CURRY, C.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION: STANLEY KS PROJECT NUM A37 FT: LONGITUDE: ___ __ __

SAMPLE DES: _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG / /91 __:__ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 10/1/91 __ __ NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSTS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME
1L cubitainer	ice		

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER: ___ OPERABLE UNIT: ___

requested - Hexavalent Cr

- 24 hr turnaround

sample collected from rinse water from storage tank

SAMPLE COLLECTED BY: _____VH_____

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO 264GK027 SAMNO QCC: _ MEDIA ~~water~~ LIQUID PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 PI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REG. / /91 DATE TIME FROM REF PI
CASE/BATCH/SMO ____/_/____ LAB: ___ END 10/3/91 15 00 EAST ____
STORET/SARCAD NO: ____ NORTH ____
DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from I255 to I261

Container	Preservative	Anal. parameters requested
1-L cubitainer	None	Total metals (23 metals)
1-L cubitainer	None	TCLP (8 metals)
1-L cubitainer	None	Total cyanide, pH

7-day turnaround requested

SAMPLE COLLECTED BY Vu / Jackson

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO ~~BG4GK28~~ BG4GR028 SAMNO QCC: _ MEDIA Solid PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 ~~12~~ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/3/91 15 30 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from I 301 & I 303 (filter cloth)

Container	Preservative	Anal Parameters Requested
1-32 oz glass	None	Total metals (23 metals)
1-32 oz glass	None	TCLP (8 metals)
1-32 oz glass	None	Total CN ~~pH~~ pH

7-day turnaround requested

SAMPLE COLLECTED BY Vu/Jackson

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO ~~BG GK~~ BG4GK029 SAMNO: QCC: _ MEDIA LIQUID PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/3/91 16 00 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from I 358 to I-383

Container	preservative	Anal. parameters requested
1-L cubitainer	None	Total Metals (23 metals)
1-L cubitainer	None	TCLP (8 metals)
1-L cubitainer	None	Total cyanide, pH

7-day turnaround requested

SAMPLE COLLECTED BY Vu/Jackson

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO ~~BG 4G~~ BG4GK03Z SAMNO QCC: _ MEDIA SOLID/SLUDGE PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/3/91 16 45 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from I-358 to I-383

Container	Preservative	Anal. parameters requested
1-8oz glass	None	Total metals (23 metals)
1-8oz glass	None	Total CN, pH
1-32oz glass	None	TCLP (8 metals)

7-day turnaround requested

SAMPLE COLLECTED BY Jackson / Hite

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO ~~BG4GK~~ BG4GK031 SAMNO QCC: _ MEDIA Soil PI CURRY, I.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 PT LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/3/91 16 30 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

see below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

sample collected from dirt pile south of the building

Container	preservative	Anal. parameters requested
1-8oz glass	None	Total metals (23 metals)
1-8oz glass	None	Total cyanide, pH
1-32oz glass	None	TCLP (8 metals)

7-day turnaround requested

SAMPLE COLLECTED BY Hite

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG4GK032 SAMNO QCC: _ MEDIA WATER PI CURRY

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 EAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/4/91 08 30 NORTH
STORET/SAROAD NO _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from storage tank # 1

Container	Preservative	Anal requested
1.L cubitainer	None	Hexavalent Cr
1.L cubitainer	~~None~~ HQ 10/4/91 NaOH	Total cyanide

→ to pH > 12

Hexavalent Cr _ 24-hr turnaround time.

pH ~ 3.5

SAMPLE COLLECTED BY : Vy

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO BG4GK 033 SAMNO QCC: _ MEDIA WATER PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/4/91 08 40 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

see below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from storage tank #2 & 3

Container	Preservative	Anal. requested
1-L cubitainer	None	Hexavalent Cr
1-L cubitainer	None	Total cyanide
1-L cubitainer	None	Total metals: Cr, Cd, Pb, soluble Cu, Ni, Ag, Zn

Hexavalent Cr - 24-hr turnaround time

~~pH 3.5~~ 10/4/91 HAW pH ≤ 1.00

SAMPLE COLLECTED BY Vy

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 AGEND SG4GK SAMNO Ø34 QCC: _ MEDIA water BY CURRY, L.

ACTIVITY DES FUHEMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 FT LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REG. DATE / /91 TIME FROM REF PT
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/7/91 09 00 LAST ____
STORET/SARUAD NO: _____ NORTH ____
DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

see below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

water sample collected from the primary (WWTP)

Container	Preservative	Anal. Requested
1. 32 oz. glass	NaOH (pH>12)	Total CN
1. 32 oz glass	HNO_3 (pH<2)	Total metals Ag, Cd, Cr, Cu, Ni, Pb, Zn

SAMPLE COLLECTED BY Vu

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO 364GK SAMNO 035 QCC: _ MEDIA ~~SOIL~~ water PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 FT LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF FT
LOCATION STANLEY KS REG / /91 __ __ EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 10/7/91 09 10 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

water sample collected from WWTP effluent (pH adjustment)

Container	Preservative	Anal. Requested
1 32 oz glass	NaOH (pH > 12)	CN
32 oz glass	HNO_3 (pH < 2)	Total metals. Ag, Cd, Cr, Cu, Ni, Pb, Zn.
1 32 oz glass	None	Total suspended solids (pH ~ 6.15)

SAMPLE COLLECTED BY _____ VU _____

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII

ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO 3G4GK SAMNO 036 QCC: _ MEDIA LIQUID PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE ___ ___ ___

LOCATION STANLEY KS PROJECT NUM A37 PT LONGITUDE ___ ___ ___

SAMPLE DES _____ DATE TIME FROM REF PT

LOCATION STANLEY KS BEG / /91 __ __ EAST ____

CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/9/91 08 30 NORTH ____

STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from Tank #1

1 - 32 ounce jar, no preservative, Hexavalent Cr analysis

24 hr. turnaround requested

1 ft cubitaker -- pH 7.12 - cn.

SAMPLE COLLECTED BY Kudlis Kim

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO 3G4GK SAMNO 037 QCC: _ MEDIA LIQUID PL CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/9/91 08 30 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from tank #2

1-32 ounce jar, no preservative, Hexavalent Cr. analysis

24 hr. turnaround requested

1 lt. cubitainer ph>12 -- cn

SAMPLE COLLECTED BY Kudhis K

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII

ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO 3G4GK SAMNO 038 QCC: _ MEDIA 4/0410 PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __

LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI

LOCATION STANLEY KS BEG / /91 __ __ EAST ____

CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/ 9/91 08 30 NORTH ____

STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from tank #3

1-32 ounce jar, no preservative, Hexavalent Cr. analysis.

1 lt. cubitaner ph > 12 cn analysis

SAMPLE COLLECTED BY Kuhlmann

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG4GK SAMNO: 039 QCC: _ MEDIA LIQUID FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE __ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 _ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 10/10/91 8 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from tank #2

1 - 32 ounce jar, -- total metals, Cr VI, pH <2

SAMPLE COLLECTED BY: Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG5GK SAMNO Ø40 QCC: _ MEDIA WATER PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/15/91 10 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

See below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

sample collected from rinse vat (decon vat)

Container	Preservative	Anal. Requested
32 oz glass	None	Hexavalent cr (Cr^{+6})
.L cubitainer	None → pH~12-13	Total CN
1-L cubitainer	HNO_3 → pH~2	Total metals. Ag, cd, Cr, Cu, Ni, Pb, Zn

Hexavalent Cr – 24-hr turnaround time

SAMPLE COLLECTED BY Hite

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACCNO BGSGK SAMNO 941 QCC: _ MEDIA WATER PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 10/18/91 05 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from WWTP effluent

Container	Preservative	Anal. Request
1-L cubitainer	None	Total suspended solids, pH
1-L cubitainer	HNO_3	Total metals: Ag, Cd, Cu, Ni, Pb, Zn, Cr.
1-L cubitainer	NaOH	Total cyanide

SAMPLE COLLECTED BY Vu

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG5GK SAMNO 042 QCC: _ MEDIA WATER PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS REG / /91 __ __ EAST: ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/21/91 09 40 NORTH: ____
STORET/SARCAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Container	Preservative (pH 3-4)	Anal. Requested
32 oz glass	None	Hexavalent cr (Cr^{+6})
1-L cubitainer	NaOH	Total cyanide

Note: Hexavalent cr – 24 hr turnaround time

SAMPLE COLLECTED BY VM

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

CY 91 ACTNO BGSGK SAMNO: 043 QCC: _ MEDIA SOLID PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE ___ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 10/24/91 13 45 NORTH ____
STORET/SARUAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

SEE Below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	Preservative	Parameters Requested
8-oz. glass	NONE	TCLP (8 metals)

SAMPLE COLLECTED FROM FLOOR SWEEPINGS USED TO CONTAIN CHROMIC ACID RELEASE

SAMPLE COLLECTED BY: Brooks

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG5GK SAMNO 044 QCC: _ MEDIA SOLID PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 LAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/24/91 14 00 NORTH
STORET/SARCIAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

container	Preservative	Parameters Requested
8 oz. glass	NONE	TCLP (8 metals)
8 oz. glass	NONE	Total CN^-

SAMPLE COLLECTED FROM SLUDGE IN BASEMENT

SAMPLE COLLECTED BY Brooks

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG5GK SAMNO Ø45 QCC: _ MEDIA SLUDGE PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION: STANLEY KS REC / /91 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 10/24/91 14 30 NORTH
STORET/SARQAD NO: _____ DOWN

ANALYSTS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Container	preservative	Parameters requested
1-L cubitainer	None	Total Cyanide
1-L cubitainer	None	Total Metals

sample collected from the drums containing spent 624 Metex solution

SAMPLE COLLECTED BY: Brooks

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACCND BG5GK SAMNO 046 QCC: _ MEDIA Liquid PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REC DATE / /91 TIME FROM REF PI
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 10/24/91 14 30 EAST NORTH DOWN
STORET/SAROAD NO: _____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

see below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

container	preservative	Parameter requested
1-L cubitainer	HNO_3 ph<2	Total Metals
1-L cubitainer	NaOH ph>12	Total Cyanide

Product collected from sealed Metex 624 Drums

SAMPLE COLLECTED BY : Brooks

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG5GK SAMNO 047 QCC: _ MEDIA ~~SOIL~~ SOLID 10/29/91 PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS REG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10 / 25 91 8 30 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Container	Preservative	Parameters Requested
8 ounce glass	None	TCLP (8 metals)

Sample collected from air duct fluff.

SAMPLE COLLECTED BY : Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BGSGK SAMNO 040 QCC: _ MEDIA Solid PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __
LOCATION STANLEY KS PROJECT NUM 437 PI LONGITUDE __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10 / 25 91 10 00 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Containers	Preservative	parameters requested
2-32 ounce jars	NONE	TCLP Metals Cn

composite sample from PPE.

SAMPLE COLLECTED BY Kudlinski

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG6GK SAMNO Ø49 QCC: _ MEDIA WATER PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS BEG / /91 DATE TIME FROM REF PI
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/29/91 0740 EAST ____
STORET/SAROAD NO: _____ NORTH ____
DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

see below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from WWTP effluent (outlet pipe @ river)

Container	Preservative	Anal. Requested
1 L cubitainer	none	Total suspended solids
1 L cubitainer	NaOH	Total cyanide
1 L cubitainer	HNO_3	Total metals. Ag, Cd, Cr, Ni, Pb, Cu, Zn

SAMPLE COLLECTED BY Vu /IAI

DRAFT

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG6GK SAMNO Ø5Ø QCC: _ MEDIA Liquid FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF FI
LOCATION STANLEY KS REG / /91 LAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/29/91 1000 NORTH
STORET/SAROAD NO _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

see below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from VAT # 1 (pink group)

Container	Preservative	Anal Requested
1-L cubitainer	None	Total metals: Ag, Cd, Cr, Pb Ni, Cu, Zn.
1-L cubitainer	None	Total cyanide
2 32oz amber	None	BNA

thick oily pink liq

SAMPLE COLLECTED BY Vu/JAT

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG6GK SAMNO Ø51 QCC: _ MEDIA Liquid PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REG. / /91 DATE TIME FROM REF PI
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 10/29/91 10 20 EAST ____
STORET/SARCAD NO: _____ NORTH ____
DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from VAT #2 (brown group)

Container	Preservative	Anal Requested
1 L cubitainer	None	Total metals: Ag, Cd, Cr, P Ni, Cu, Zn.
1 L cubitainer	None	Total cyanide
2 32 oz amber	None	BNA

thick oily brown/tan liq.

SAMPLE COLLECTED BY Vu/TAT

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACCNO BG5GK SAMNO Ø52 QCC: _ MEDIA Liquid PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 EAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/29/91 10 40 NORTH
STORET/SARCAD NO: _____ DOWN:

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

See below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from VAT # 3 (insoluble oil group)

Container	Preservative	Anal. Requested
1 L cubitainer	None	Total metals: Ag, Cd, Cr, Ni, Pb, Cu, Zn.
2 32oz amber	None	BNA

thick oily black liq.

SAMPLE COLLECTED BY Vu / JAT

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACIND BG6GK SAMNO Ø53 QCC: _ MEDIA Liquid PI CURRY, E.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 LAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/29/91 11 00 NORTH
STORET/SARDAD NO: _____ DOWN:

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from tank # 4 (consol. & skim group)

Container	Preservative	Anal requested
1-L cubitainer	None	Total metals: Ag, Cd, Cr, Ni, Pb, Cu, Zn.
1-L cubitainer	None pH>12	Total cyanide
2 32 OZ amber	None	BNA

pH >12

SAMPLE COLLECTED BY Vu/JAT

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG6GK SAMNO 054 QCC: _ MEDIA LIQUID FI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 437 FI LONGITUDE __ __ __

SAMPLE DES _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 _ _ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 10/31/91 09 45 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from VAT # 5 (yellow water – vat from automatic plating line)

Container	Preservative	Anal. requested
1-L cubitainer	None	Total metals. Ag, Cd, Cr, Ni, Pb, Cu, Zn.
1-L cubitainer	None	Hexavalent Cr (Cr^{+6})

pH ~ 1.0

Cr^{+6} analysis reqd' 24-hr turnaround

SAMPLE COLLECTED BY Vu/TAT

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Y 91 ACTNO BG6GK SAMNO Ø55 QCC: _ MEDIA LIQUID PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS DATE TIME FROM REF PI
BEG / /91 EAST
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 10/31/91 09 40 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
1-L cubitainer	None		For Cr^{+6} analysis

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Sample collected from rinse vat

pH ~ 3.3

Hexavalent cr (Cr^{+6}) reqd' 24-hr turnaround time

SAMPLE COLLECTED BY Vu/TAT

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Y 91 ACCND BG6GK SAMNO 056 QCC: _ MEDIA SOLID FT CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 037 FT LONGITUDE __ __ __

SAMPLE DES _____ DATE TIME FROM REF FT
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 11/4/91 13 00 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETER REQUESTED
1 - 8 ounce.	NONE	TCLP METALS
1 - 8 ounce	NONE	TOTAL, FREE Cn.

plating line sludge pile composite

SAMPLE COLLECTED BY Kudlinski

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Y 91 ACEND BG6GK SAMNO p57 QCC: _ MEDIA SOLID PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 637 PI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REG. DATE / /91 TIME FROM REF PT
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 11/4/91 13 00 LAST ____
STORET/SAROAD NO: _____ NORTH ____
DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETER REQUESTED
1 - 8 ounce	NONE	TCLP METALS
1 - 8 ounce	NONE	TOTAL, FREE CN.

Sample collected from three drums out of the WWTP area,

SAMPLE COLLECTED BY Kudlinski

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U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG6GK SAMNO 058 QCC: _ MEDIA SOLID PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 _ _ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/ 5/91 16 00 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETERS
8 ounce	None	TCLP METALS
8 ounce	None	TOTAL CN

- Sample collected from drum group # 1.

SAMPLE COLLECTED BY Hudlins TRi

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BG6GK SAMNO Ø59 QCC: _ MEDIA SOLID PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/ 5/91 16 00 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETERS
8 ounce	none	TCLP METALS
6 ounce	none	TOTAL CN

- Sample collected from sock filter drum group #2

SAMPLE COLLECTED BY Kudlinski

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

91 ACTNO BG6GK SAMNO Ø6Ø QCC: _ MEDIA ~~SOIL~~ water PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE ___ __ __
LOCATION STANLEY KS PROJECT NUM 337 PI LONGITUDE ___ __ __

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/6/91 11 45 NORTH ____
STORET/SAROAD NO _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETERS
32ounce cubitaner	NaOH	Cn
32ounce cubitaner	Nitric Acid	TOTAL METALS

- Sample collected from WWTP effluent.

SAMPLE COLLECTED BY Kudlin Ko

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY KS 66115

Y 31 ACTNO 3G6GK SAMNO 061 QCC: _ MEDIA Soil SURRY

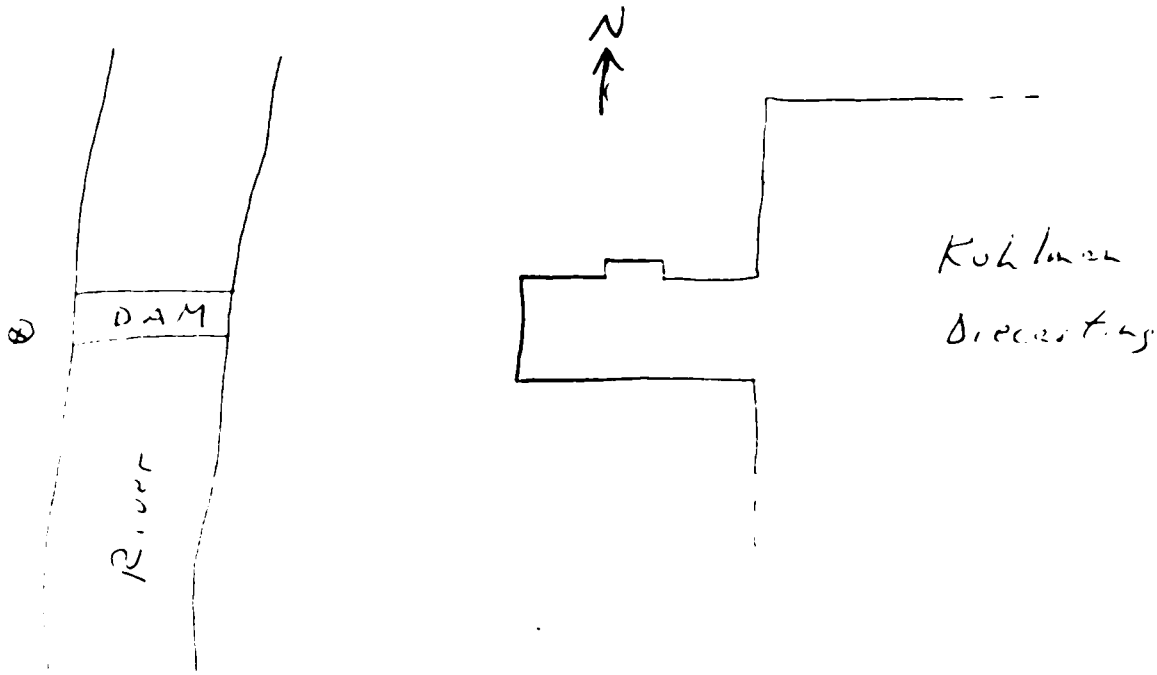
ACTIVITY DES KUHLMAN DECASTING REF ATTITUDE
LOCATION STANLEY KS PROJECT NUM A37 FT LONGITUDE

SAMPLE DES XRF Standard #1 DATE TIME FROM REF PT
LOCATION STANLEY KS BEG 11/06/91 10 40 EAST ____
CASE/BATCH/SMO ____/__/____ LAB: ___ END 11/06/91 10 45 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz jar	None	SM01-SM24	Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII

ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG6GK SAMNO 062 QCC: _ MEDIA Soil PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __

LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES XRF standard #2 DATE TIME FROM REF PI

LOCATION STANLEY KS BEG 11/06/91 10 20 EAST ____

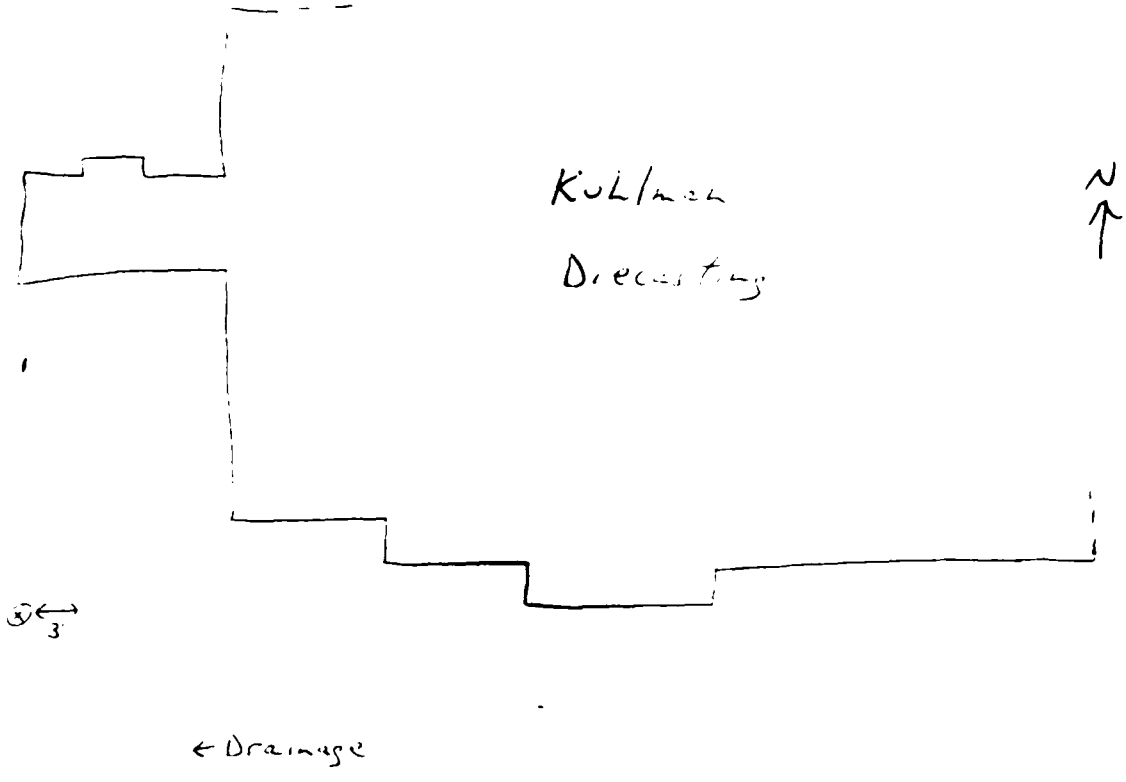
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/06/91 10 55 NORTH ____

STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz jar	None	SM01-SM24	Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG6GK SAMNO Ø63 QCC: _ MEDIA Soil PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

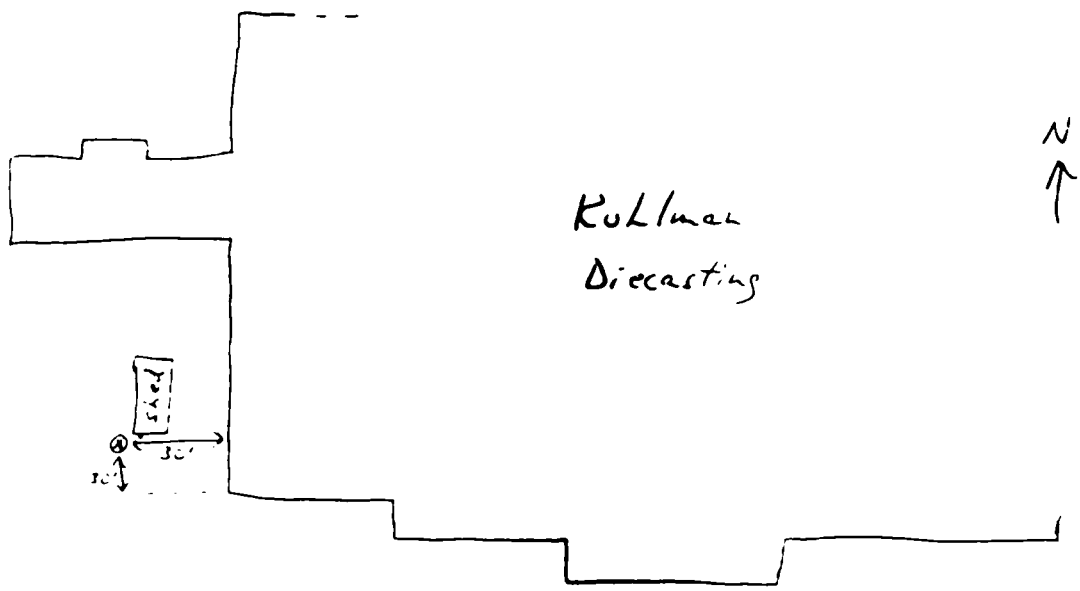
SAMPLE DES X RF Standard #3
LOCATION STANLEY KS
CASE/BATCH/SMO ____/_/_____ LAB: ___
STORET/SAROAD NO: _____

	DATE	TIME	FROM REF PT
BEG	11/06/91	11 00	EAST ____
END	11/06/91	11 05	NORTH ____
			DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz jar	None	SM01-SM24	Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO 3G6GK SAMNO 064 QCC: _ MEDIA Soil FI CURRY, K.

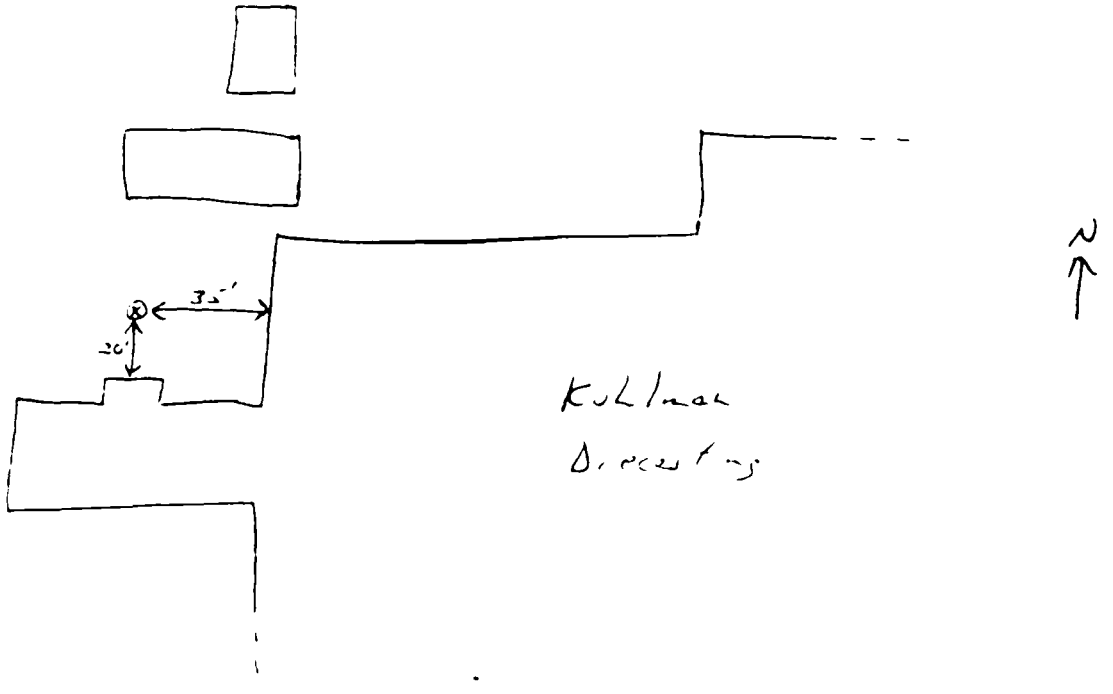
ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM 437 FI LONGITUDE ___ __ __

SAMPLE DES X-RF Standard #4 DATE TIME FROM REF FI
LOCATION STANLEY KS REC. 11/06/91 11 40 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/06/91 11 45 NORTH ____
STORET/SARDAD NO: _____ DOWN: ____

ANALYSTS REQUESTED

CONTAINER	PRESERVATIVE	MGF	NAME
8 Oz jar	None	SM01-SM24	Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frazell

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO 3G6GK SAMNO 465 QCC: _ MEDIA Soil PI CURRY

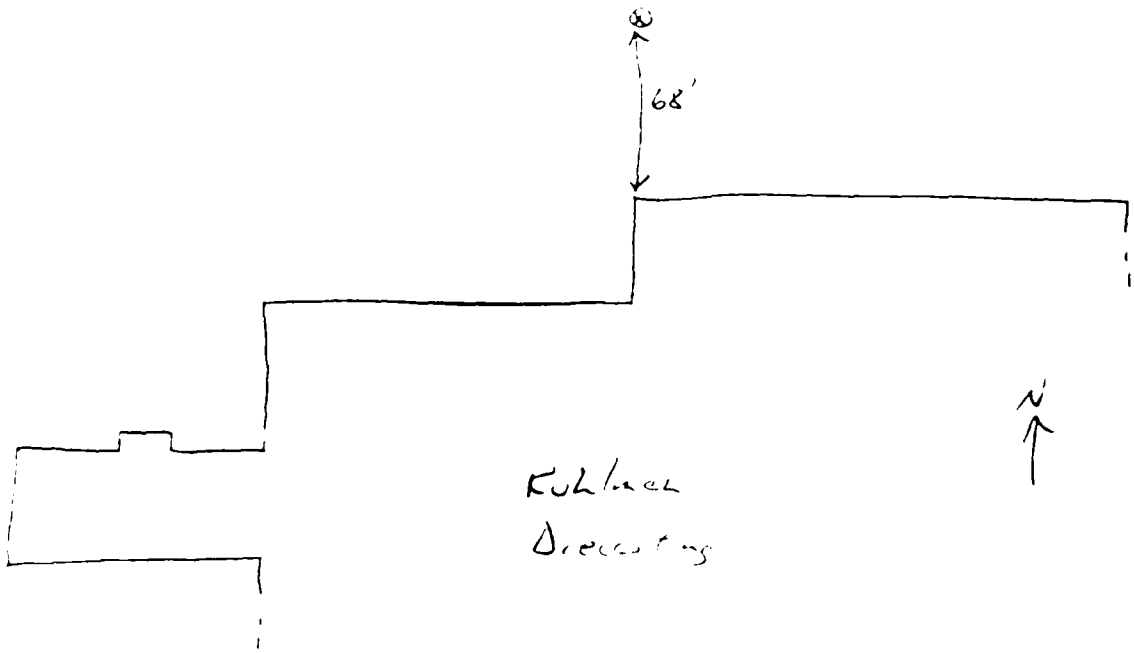
ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES XRF Standard #5 DATE TIME FROM REF P
LOCATION STANLEY KS BEG 11/06/91 11 20 EAST
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 11/06/91 11 25 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 Oz jar	None	SM01-SM24	Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII

ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG6GK SAMNO 066 QCC: _ MEDIA Soil PL CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE ___ __ __

LOCATION STANLEY KS PROJECT NUM A37 PT LONGITUDE ___ __ __

SAMPLE DES XRF Standard #6 DATE TIME FROM REF PT

LOCATION STANLEY KS BEG 11/06/91 LL 30 EAST ____

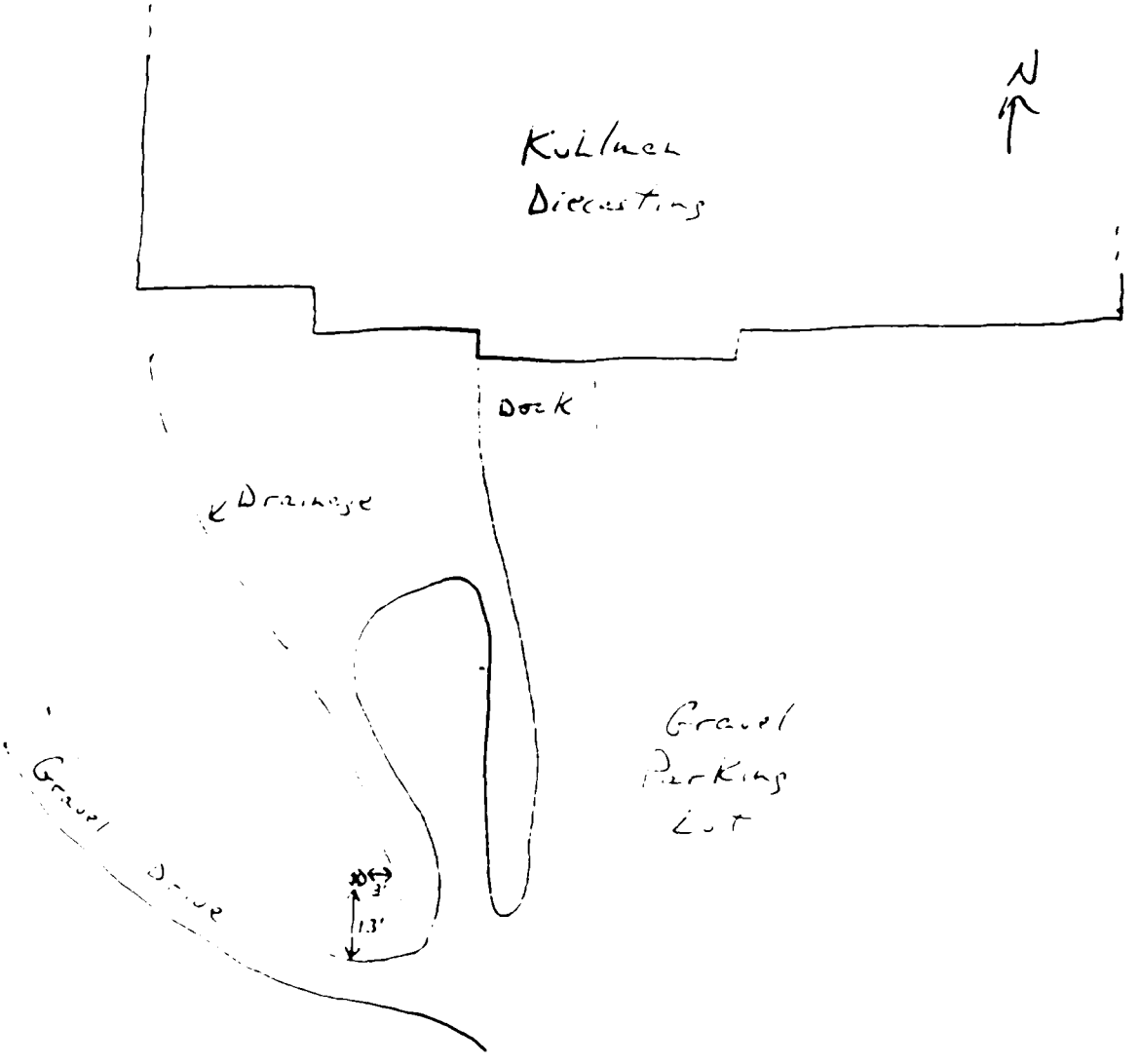
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/06/91 LL 35 NORTH ____

STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz jar	None	SM01-SM24	Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG6GK SAMNO 067 QCC: _ MEDIA Soil PI CURRY, T.

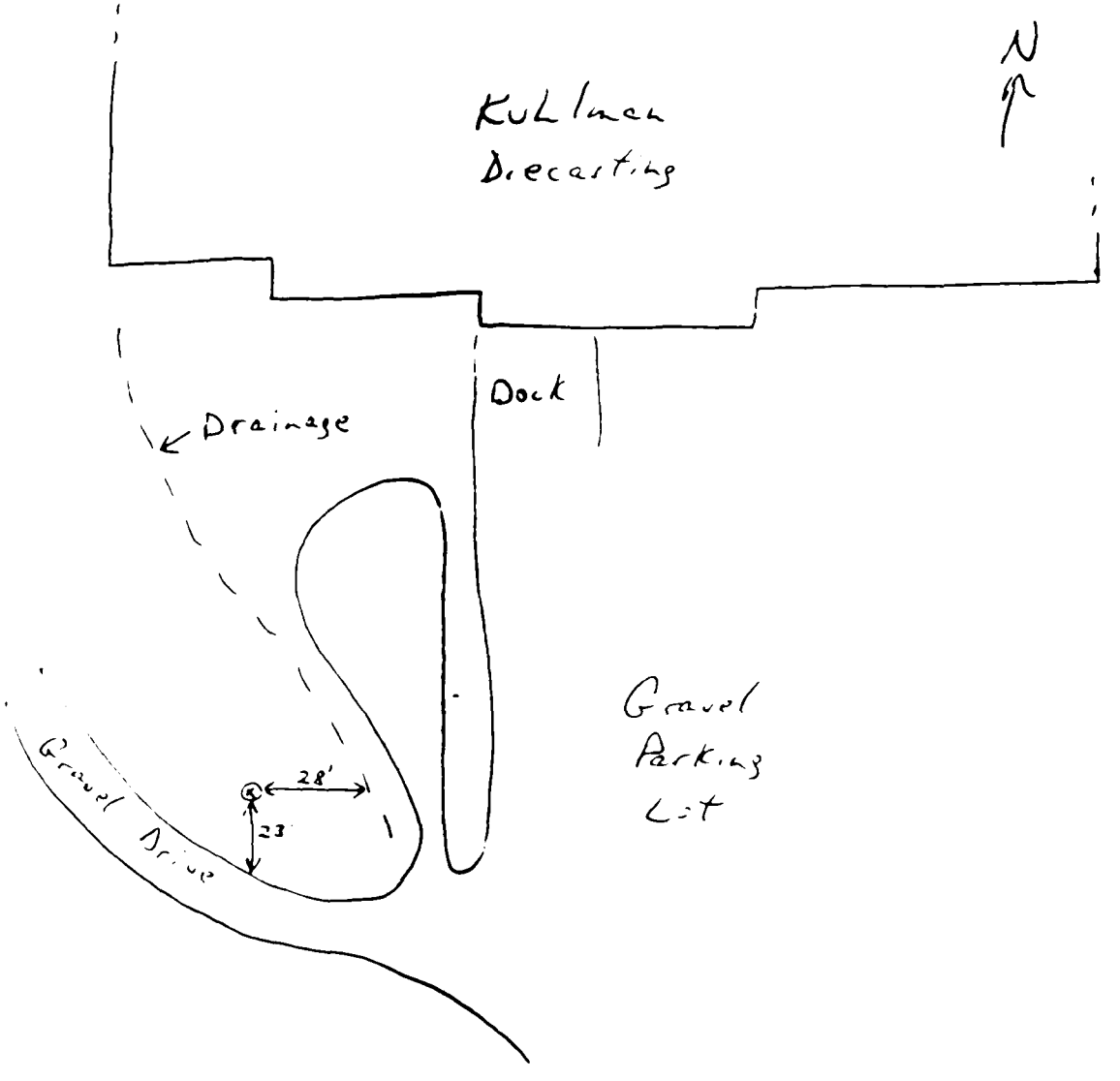
ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES X-25 Standard #7 DATE TIME FROM REF PT
LOCATION STANLEY KS BEG 11/06/91 11:40 EAST
CASE/BATCH/SMO: ____/_/_____ LAB: ___ END 11/06/91 11:45 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSTS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz jar	None	SM01-SM24	Total Metals by ICAP (no Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Ferrell

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: BG6GK SAMNO: 068 QCC: _ MEDIA Soil PI CURRY, T.

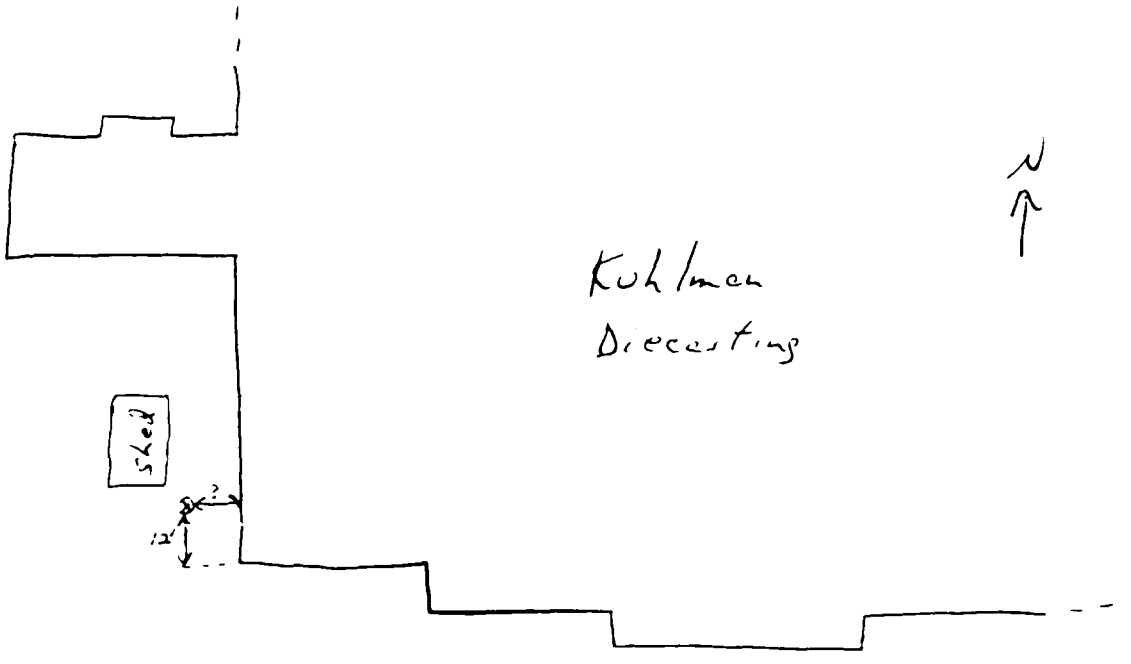
ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES X.R.F. Standard #8 DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG: 11/06/91 11 50 EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 11/06/91 11 52 NORTH: ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 Oz jar	None	SM41-SM24	Total Metals by ICAP (No H_2)

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

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FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY: 91 ACTNO: BG6GK SAMNO: 069 QCC: _ MEDIA: Soil PI: CURRY, C.

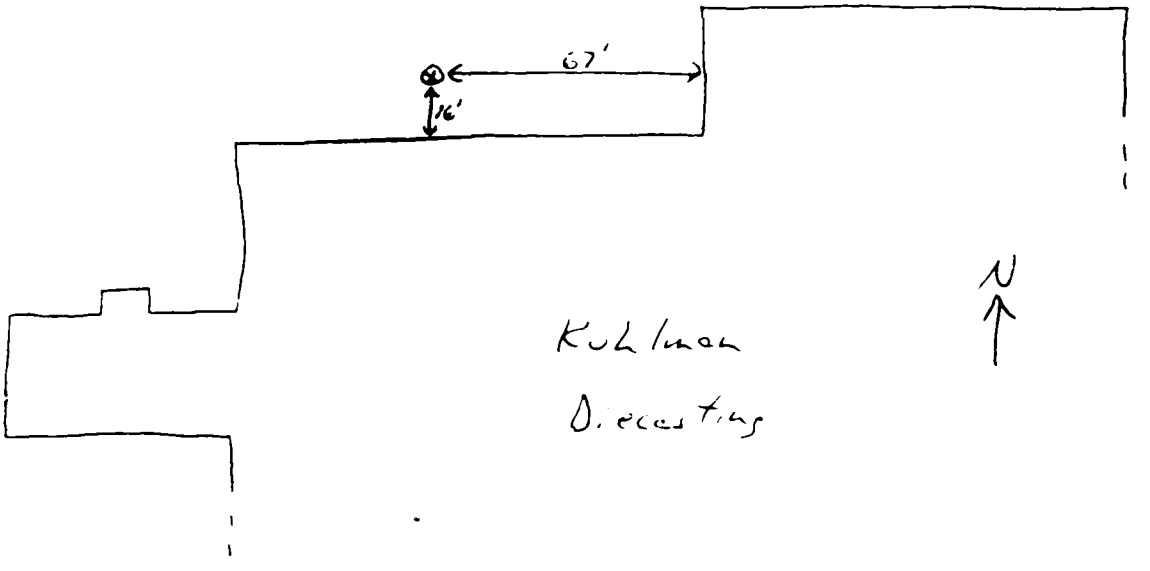
ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE: __ __ __
LOCATION: STANLEY KS PROJECT NUM: A37 PI LONGITUDE: ___ __ __

SAMPLE DES: XRF Standard #9 DATE TIME FROM REF PI
LOCATION: STANLEY KS BEG: 11/06/91 12:00 EAST: ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END: 11/06/91 12:05 NORTH: ____
STORET/SARWAD NO: _____ DOWN: ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz jar	None	SM01-SM24	Total Metals by ICAP (Cu, Hg)

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY: Frizzell

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG6GK SAMNO Ø7Ø QCC: _ MEDIA Soil PI CURRY, T.

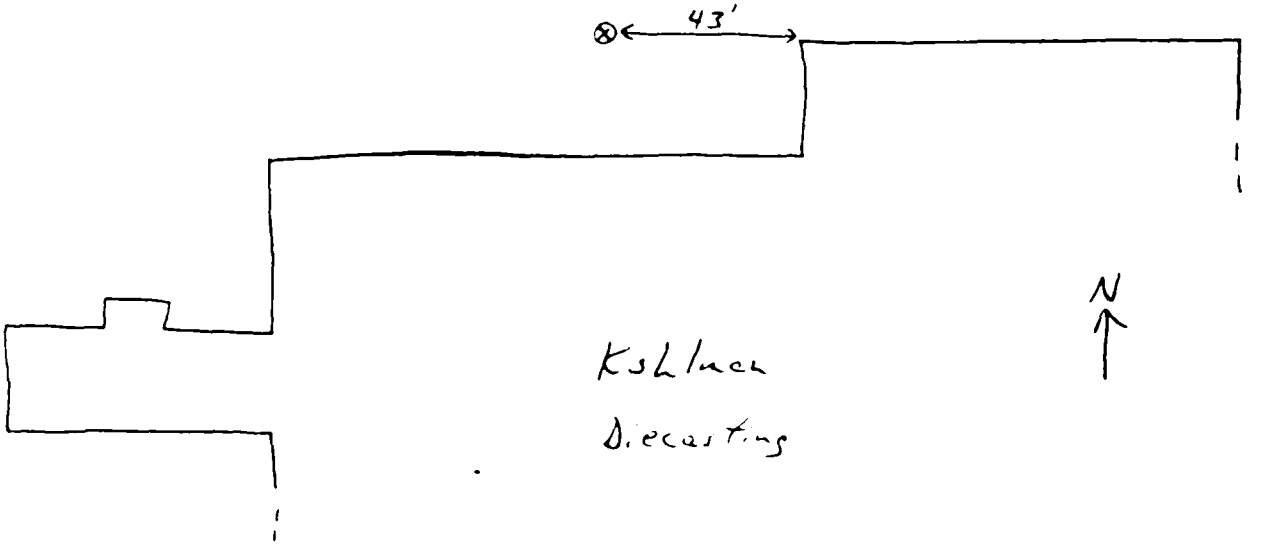
ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES XRF Standard #10 DATE TIME FROM REF PI
LOCATION STANLEY KS BEG 11/06/91 13:10 EAST
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 11/06/91 13:15 NORTH
STORET/SAROAD NO: _____ DOWN:

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

8 oz jar None SM01-SM24 Total Metals by ICAP (No Hg)

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___



SAMPLE COLLECTED BY Frizzell

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO 3G6GK SAMNO Ø71 QCC: _ MEDIA LIQUID FI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 EAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/ 8 91 8 45 NORTH
STORET/SARDAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETER
32ounce cubitainer	NaoH ph>12	TOTAL CN

- Sample collected from EPA tank #4 after cn treatment

SAMPLE COLLECTED BY KUDLINSKI

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Y 91 ACTNO BG7GK SAMNO Ø72 QCC: _ MEDIA Soil FM CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 FT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF FT
LOCATION: STANLEY KS BEG / /91 EAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/11/91 09 00 NORTH
STORET/SARCAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETER
8oz. glass	NONE	Total Metals (8 METALS ~~8 metals~~ PRB)
8 oz. GLASS	NONE	Total Cyanide

SAMPLE COLLECTED FROM THE AREA OF THE BASEMENT W/O CEMENT FOUNDATION.

* HOLD SAMPLE & ANALYZE FOR TCLP Metals if result on TOTAL METALS ARE 20 times above THE TCLP Regulatory level.

SAMPLE COLLECTED BY : BRooks

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FY 91 ACTNO BG7GK SAMNO Ø73 QCC: _ MEDIA SOIL PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/11/91 10 45 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

CONTAINER	Preservative	PARAMETER
8 oz glass	NONE	TCLP Metals (8 Metals)
8 oz. glass	NONE	Total Cyanides

Collected from the pILE OF SOIL IN THE EAST END OF AREA #3.

SAMPLE COLLECTED BY BROOKS

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FY 91 ACTNO BG7GK SAMNO Ø74 QCC: _ MEDIA SAND (SOLID) PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE __ __
LOCATION STANLEY KS PROJECT NUM 437 PI LONGITUDE __ __

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS REG / /91 __ __ EAST ____
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 11/11/91 15 45 NORTH ____
STORET/SARCIAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	PARAMETER
8 oz. glass	NONE	TCLP METALS (8 metals)
8 oz. glass	NONE	Total CYANIDE

Sample of sand collected from the bottom of the SAND FILTER.

SAMPLE COLLECTED BY : BROOKS

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CY 91 ACTNO 3G7GK SAMNO Ø75 QCC: _ MEDIA WATER PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REG. DATE / /91 TIME FROM REF PT
CASE/BATCH/SMO: ____/__/_____ LAB: ___ END 11/19/91 08 30 EAST ___
STORET/SAROAD NO: _____ NORTH ___
DOWN ___

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME
SEE BELOW

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___
Collected from the trough area within the WWTP

CONTAINER	PRESERVATIVE	Parameters
1-L Cub. Container	HNO_3 (ph < 2)	Total Metals: Ag, Cd, Cr, Cu, Ni, Pb, Z
1-L Cubitainer	NONE (ph ~ 12.10)	Total Cyanide
-L Cubitainer	NONE	Hexavalent Cr (Cr^{+6})

SAMPLE COLLECTED BY : BROOKS

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Y 91 ACTNO BG8GK SAMNO 076 QCC: _ MEDIA SOLID FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 FI LONGITUDE

SAMPLE DES
LOCATION STANLEY KS REG. / /91 DATE TIME FROM REF FI
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 12/3/91 12 00 EAST ____
STORET/SAROAD NO: _____ NORTH ____
DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	Preservative	Parameters
8 oz. glass	None	TCLP (8 metals), mercury
8 oz. glass	None	Total Cyanide

A composite sample collected from the floor sweepings in the polishing room, the fine particle fluff in a drum, & the material in a partially crushed fiber drum. All of these materials were located in the same proximity - on the north side of the polishing room.

SAMPLE COLLECTED BY : BROOKS

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Y 91 ACTNO BG8GK SAMNO 077 QCC: _ MEDIA SOLID PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 12/3/91 12 15 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
	see below		

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	Preservative	Parameters
8oz. Glass	NONE	TCLP (8 metals); Mercury
8oz. glass	NONE	Total Cyanide

SAMPLE COLLECTED FROM the pile of solid material in the North end of the polishing room which was derived from the inside of the vats which were located in the Automatic Plating Line.

SAMPLE COLLECTED BY BROOKS

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Y 91 ACTNO BG8GK SAMNO Φ78 QCC: _ MEDIA WOOD FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF FI
LOCATION STANLEY KS BEG / /91 LAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/ 3/91 12 20 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

SEE Below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Container	Preservative	Parameter
8oz. glass	None	TCLP (8 metals); mercury
8oz. glass	None	Total Cyanide

Wood chips collected from the (2) staged pallets which were visually segregated as being "clean."

SAMPLE COLLECTED BY : Brooks

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Y 91 ACTNO BG8GK SAMNO Φ79 QCC: _ MEDIA WOOD PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/3/91 12 30 NORTH ____
STORET/SAROAD NO: _____ DOWN: ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

SEE BELOW

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER _ OPERABLE UNIT ___

CONTAINER	Preservative	Parameter
8oz. glass	None	TCLP (8 metals); mercury
8oz. glass	None	Total Cyanide

WOOD CHIPS collected from the (3) pallets of wood which were visually segregated as being "contaminated."

SAMPLE COLLECTED BY : Brooks

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FY 91 ACTNO BG8GK SAMNO 080 QCC: _ MEDIA SOLID FT CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 FT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF FT
LOCATION STANLEY KS BEG / /91 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 12/3/91 12 45 NORTH
STORET/SARCIAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

SEE BELOW

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

CONTAINER	Preservative	Parameter
8oz. glass	None	~~Total Metals~~ PHS (8 metals); Mercury TCLP metals
8oz. glass	None	Total Cyanide

A composite sample collected from (9) drums of NICKEL WASTE MATERIAL LOCATED IN THE POLISHING ROOM.

SAMPLE COLLECTED BY : BROOKS

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FY 91 ACTNO BG8GK SAMNO Ø81 QCC _ MEDIA WATER PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ _
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ _

SAMPLE DES _____ DATE TIME FROM REF
LOCATION STANLEY KS BEG 12/10/91 07 00 EAST _
CASE/BATCH/SMO _____/_/_____ LAB ___ END 12/10/91 16 40 NORTH
STORET/SAROAD NO _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

SEE BELOW

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from WWTP (all day composite)

CONTAINER	Preservative	ANALYSIS REQUESTED
1-liter cubitainer	NONE	Total Suspended Solids, pH
1-liter cubitainer	HNO_3 (ph<2)	Metals: Total Cr, Total Cd, Total Pb, Soluble Cu, Total Ni, Total Ag, Tot
1-liter cubitainer	NONE	Hexavalent Cr
1-liter cubitainer	NaOH (pH>12)	Total CN
1-liter cubitainer	NONE	FREE CN
1-32 oz. AMBER	H_2SO_4 (ph<2)	Oil + Grease

SAMPLE COLLECTED BY : BROOKS

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Y 91 ACTNO BG8GK SAMNO Ø82 QCC: _ MEDIA Dust PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG 12/10/91 1015 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END __/ _91 __ __ NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

SEE Below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

≈100 sq. ft was vacuumed representing the following areas:
Break room, Women's Locker Room, + Men's Locker Room.

CONTAINER	preservative	requested analyses
Zip-Lock bag	none	Total Metals (8 metals)
		Total CN

SAMPLE COLLECTED BY : Brooks & Vu

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U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG8GK SAMNO Φ83 QCC: _ MEDIA Dust PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 PT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS REC / /91 _ _ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/10/91 10 30 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

6 aliquots collected from the landing above the Plating and Diecasting Areas (sweep sample)

Container	preservative	requested analyses
Zip-Lock bag	none	Total metals (8 metals)
		Total CN

SAMPLE COLLECTED BY : Brooks L. Vu

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO 3G8GK SAMNO Φ83 QCC: D MEDIA Dust FT CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 FT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /91 LAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/10/91 10 30 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME
SEE BELOW

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___
Duplicate of SAMPLE Φ83 - collected from (6) aliquots along the loading area above the plating + die casting areas (sweep sample)

Container	preservative	requested analysis
Ziplock bag	none	Total Metals (8 metals)
		Total CN

SAMPLE COLLECTED BY : Vu & Brooks

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Y 91 ACTNO BGBGK SAMNO Ø84 QCC: _ MEDIA Dust PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE

LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT

LOCATION: STANLEY KS BEG / /91 EAST

CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/10/91 10 45 NORTH

STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED

CONTAINER PRESERVATIVE MGP NAME

SEE BELOW

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

≈ 100 sq. ft. vacuumed from the packaging material storage area + the store room (located @ the S.E. corner of the facility)

Container	preservative	requested analysis
Ziplock Bag	NONE	Total Metals (8 metals)
		Total CN

SAMPLE COLLECTED BY : Vu + Brooks

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FY 91 ACTNO BG5GK SAMNO 085 QCC: _ MEDIA WATER PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS BEG / /91 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/13/91 08 15 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

SAMPLE CONTAINER	preservative	requested analysis
1-L glass (amber)	H_2SO_4 (pH<2)	oil & grease

Sample collected from the treatment tank containing the pink viscous liquid.
Sample was collected after the pink liquid had undergone treatment.
Sample collected from TANK #3

SAMPLE COLLECTED BY : BROOKS

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Y 91 ACTNO BG8GK SAMNO 086 QCC: _ MEDIA WATER PI CURRY, I.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM 437 LONGITUDE

SAMPLE DES WWTP effluent composite DATE TIME FROM REF PT
LOCATION STANLEY KS BEG 12/18/91 02 30 EAST
CASE/BATCH/SMO ____/_/_____ LAB: ___ END 12/19/91 10 30 NORTH
STORET/SARCAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGF NAME

See Below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Container	Preservative	Name
1-liter cubitainer	None	Total Suspended Solids, pH
1-liter cubitainer	HNO_3 + Ice	Metals: Cr, Cd, Cu, Pb, Ni, Ag, Zn
1-liter cubitainer	Ice	Hexavalent Cr
1-liter cubitainer	NaOH + Ice	Total Cyanide
1-liter cubitainer	None	Free Cyanide
32-ounce amber jar	H_2SO_4 + Ice	Oil and Grease

Sample collected from WWTP effluent (day-long composite)

SAMPLE COLLECTED BY : Parman

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Y 91 ACTNO BG8GK SAMNO Ø87 QCC: _ MEDIA WOOD PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE ___ __ __

SAMPLE DES Wood debris composite DATE TIME FROM REF PI
LOCATION: STANLEY KS BEG. 12/19/91 10:30 EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 12/19/91 11 30 NORTH ____
STORET/SARWAD NO: _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
16 oz glass jar	None		TCLP metals (including Hg)
16 oz. glass jar	None		Total Cyanide

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Composite sample of wood cuttings from wood debris (staged on 5 pallets) following steam cleaning. Sample collected with electric drill / spade bit.

SAMPLE COLLECTED BY : Parman

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[illegible] ACINO 2G9GK SAMNO Ø88 QCC _ MEDIA LIQUID [illegible] CURRY [illegible]

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 [illegible] LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF [illegible]
LOCATION STANLEY KS BEG [illegible]/92 _ _ EAST __
CASE/BATCH/SMO _____/_/_____ LAB ___ END 1/4/92 [illegible] NORTH __
STORET/SAROAD NO _____ DOWN __

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER OPERABLE UNIT __

CONTAINER	PRESERVATIVE	REQUESTED ANALYSES
32 oz glass	NONE	TOTAL METALS - Ag, Cd, Cr, Cu, Ni, Pb, ZN, AS
32 oz. glass	NONE	CYANIDE

Aqua colored viscous LIQUID COLLECTED FROM A 55-gallon DRUM (I-689).

SAMPLE COLLECTED BY BROOKS

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BG9GK SAMNO C89 QCC: _ MEDIA LIQUID PI CURRY, L

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG / /92 EAST
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 11/6/92 08 30 NORTH
STORET/SAROAD NO _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER _ OPERABLE UNIT ___

CONTAINER	PRESERVATIVE	REQUESTED ANALYSES
32 oz glass	NONE	TOTAL METALS: Ag, Cd, Cr, Cu, Ni, Pb, Zn, As
32 oz. glass	NONE	CYANIDE

Composite sample collected from the following: 55 gallon drum (TAT sample # I-239), 5-gallon container - Chem-lube DoR-122 Die cast release fluid + 1-gallon Hi-Temp lubricants, Inc. EC-Z.
Brownish Oily viscous liquid

SAMPLE COLLECTED BY: BROOKS

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Y 91 ACIND BG9GK SAMNO Ø90 QCC: _ MEDIA SLUDGE PI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PI
LOCATION STANLEY KS REG. / /92 LAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 1/ 8/92 11 00 NORTH ____
STORET/SARQAD NO _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGF	NAME
32 oz Glass	None		Total CN

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample collected from the green open top poly tank (EPA tank)

pH ~ 10

SAMPLE COLLECTED BY : Hite

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Y 91 ACTNO 3G9GK SAMNO Ø91 QCC: _ MEDIA WATER CF CURRY F

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FT LONGITUDE

SAMPLE DES _____ DATE TIME FROM REF PT
LOCATION STANLEY KS BEG 1/8/92 07 30 EAST ___
CASE/BATCH/SMO _____/_/_____ LAB ___ END 1/8/92 16 30 NORTH ___
STORET/SAROAD NO _____ DOWN ___

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

See below

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___
Sample collected from WWTP effluent composite (all day)

Container	Preservative	Analytical Parameters
1 - L cubitainer	None	Total suspended solids, pH
1 - L cubitainer	HNO_3 (pH<2)	Metals. Cr, Cd, Cu, Pb, Ni, Ag
_ L cubitainer	None	Hexavalent Cr
1 - L cubitainer	NaOH (pH>12)	Total cyanide
1 - L cubitainer	None	Free cyanide
32 - oz amber jar	H_2SO_4	Oil & grease

Note Hexavalent Cr reqd' 24-hr. turnaround

SAMPLE COLLECTED BY Vu

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[illegible] 3G9GK SAMNO Ø92 QCC _ MEDIA SLUDGE [illegible] CURRY, [illegible]

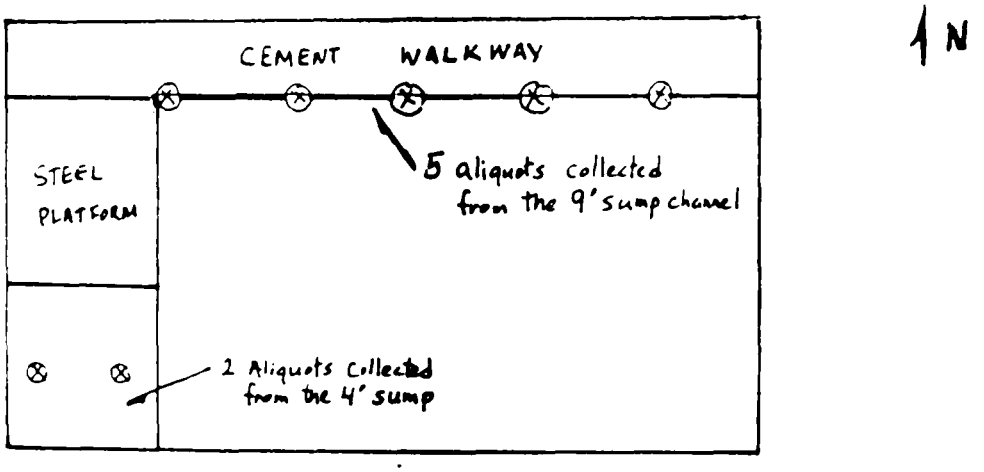
[illegible] KUHLMAN DIECASTING REF LATITUDE _ __ __
[illegible] STANLEY KS PROJECT NUM A37 FT LONGITUDE ___ __ __

SAMPLE [illegible] _____ DATE TIME FROM REF PT
[illegible] STANLEY KS BEG / /92 __ __ EAST ____
CASE/BATCH/SMO _____/_/_____ LAB: ___ END 1/10/92 10 30 NORTH ____
STORET/SAROAD NO _____ DOWN ____

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

COMMENTS FOR SUPERFUND ONLY SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

CONTAINER	preservative	ANALYSIS
8oz. jar	NONE	TOTAL CYANIDE
8oz. JAR	NONE	Total Metals: Ag, Cd, Cr, Cu, Ni, Pb, Zn, As



7 ALIQUOTS COLLECTED FROM THE SUMP AREA RUNNING UNDERNEATH the cement walkway + ~~[illegible]~~ the 4' sump retention AREA.
BAB 1/10/92

SAMPLE COLLECTED BY BROOKS

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U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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FY: 91 ACTNO: BGAGK SAMNO: 693 QCC: _ MEDIA Insulation FI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __
LOCATION: STANLEY KS PROJECT NUM A37 FI LONGITUDE __ __

SAMPLE DES Pipe Insulation DATE TIME FROM REF
LOCATION: STANLEY KS BEG 02/11/91 10 30 EAST _
CASE/BATCH/SMO: _____/_/_____ LAB ___ END 02/11/91 10 35 NORTH _
STORET/SAROAD NO: _____ DOWN _

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 Oz. jar	None		Asbestos

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Grab sample from roll of insulating material located north of Kuhlman warehouse.

SAMPLE COLLECTED BY : Parman

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: BGAGK SAMNO: 094 QCC: _ MEDIA Brick PI CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE
LOCATION: STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES: Refractory Brick DATE TIME FROM REF
LOCATION: STANLEY KS BEG 02/11/92 10:30 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 02/11/92 10:35 NORTH
STORET/SAROAD NO: _____ C.P. 2/11/92 DOWN

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGF	NAME
8 Oz. jar	None		Total Metals
8 Oz. jar	None		TCLP Metals

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Composite sample of refractory brick debris stockpiled south of Kuhlman warehouse. 10 aliquots collected.

SAMPLE COLLECTED BY : Pacman

DRAFT

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FY 91 ACTNO: BGAGK SAMNO: 695 QCC: _ MEDIA Sediment PI CURRY, C.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION: STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES Tank Sediment DATE TIME FROM REF PI
LOCATION: STANLEY KS REG. 02/11/91 13 45 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 02/11/91 13 50 NORTH
STORET/SAROAD NO: _____ DOWN

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
8 oz. jar	None		Total Metals
8 oz. jar	None		TCLP Metals

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

Sample of sediment collected from bottom of plastic tank located by light pole in Kuhlman parking lot.

SAMPLE COLLECTED BY : Parsons

DRAFT

FIELD SHEET

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FY 91 ACTNO: BGAGK SAMNO: Ø96 QCC: _ MEDIA: Dust PI: CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE ___ __ __
LOCATION: STANLEY KS PROJECT NUM A37 REF LONGITUDE ___ __ __

SAMPLE DES: Upstairs Dust DATE TIME FROM REF PT
LOCATION: STANLEY KS BEG 02/13/91 12:30 EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 02/13/91 12:45 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGF	NAME
16 oz jar	None		TCLP Metals

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Composite sample (4 aliquots) of dust collected from upstairs (Area #3) of Kuhlman warehouse.

SAMPLE COLLECTED BY : Parmer

DRAFT

FIELD SHEET

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FY: 91 ACTNO: BGBGK SAMNO: 097 QCC: _ MEDIA: Air/Gas PI: CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE ___
LOCATION: STANLEY KS PROJECT NUM A37 PI LONGITUDE ___

SAMPLE DES: EPA lab DATE TIME FROM REF P
LOCATION: STANLEY KS REC 02/21/92 ___ EAST ___
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 02/21/92 12 45 NORTH ___
STORET/SAROAD NO: _____ HGN 2/21/92 DOWN ___

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGF	NAME
Tether bar	None	AY04	

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Di Chlorodifluoromethane Analysis

Suspect gas will be high concentration of CCl_2F_2

SAMPLE COLLECTED BY : Hite/Riedel

DRAFT

FIELD SHEET

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ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BGCGK SAMNO ø98 QCC: _ MEDIA Concrete FI CURRY, L.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE

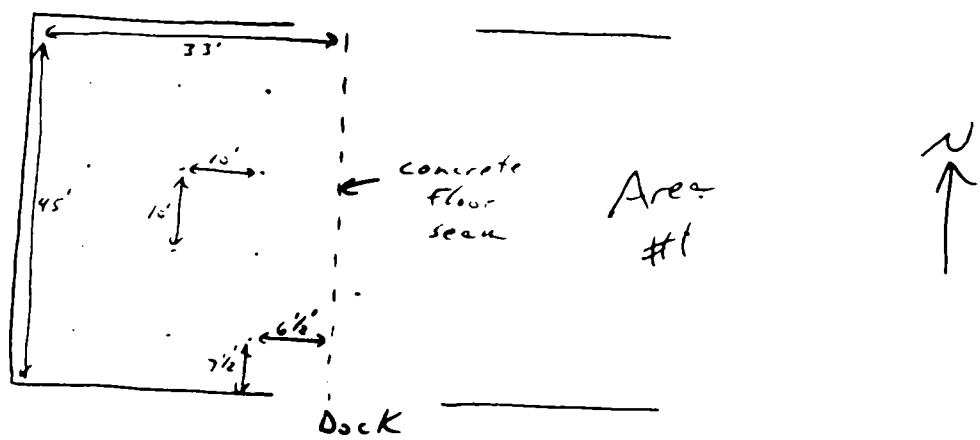
SAMPLE DES Concrete Floor Composite DATE TIME FROM REF FI
LOCATION: STANLEY KS BEG 03/18/92 10 30 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 03/18/92 11 30 NORTH
STORET/SARUAD NO: _____ DOWN

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGF	NAME
4 oz jar	None		Hexavalent Chromium

COMMENTS FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Composite sample (12 aliquots) collected from 33'x 45' area north of dock (Area #1). Grid design was as follows:



SAMPLE COLLECTED BY : RES / Parker

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
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FY 91 ACTNO: BGCGK SAMNO: Ø99 QCC: _ MEDIA Concrete PI CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE ___ __ __
LOCATION: STANLEY KS PROJECT NUM A37 PT LONGITUDE ___ __ __

SAMPLE DES: Concrete Floor Composite
LOCATION: STANLEY KS
CASE/BATCH/SMO: _____/_/_____ LAB: ___
STORET/SAROAD NO: _____

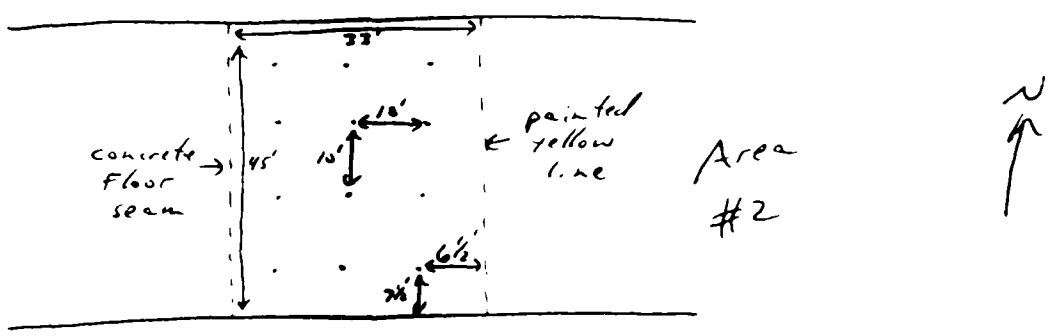
	DATE	TIME	FROM REF PT
BEG	03/18/92	11 30	EAST ____
END	03/18/92	13 30	NORTH ____
			DOWN ____

ANALYSIS REQUESTED:

CONTAINER	PRESERVATIVE	MGP	NAME
4 Oz jar	None		Hexavalent Chromium

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Composite sample (12 aliquots) collected from 33' x 45' area in Area #2. Grid design was as follows:



SAMPLE COLLECTED BY : RES / Parman

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO BGCGK SAMNO 100 QCC: _ MEDIA FI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 FI LONGITUDE ___ __ .

SAMPLE DES Concrete floor composite DATE TIME FROM REF FI
LOCATION STANLEY KS BEG 3/27/91 10:00 EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 3/27/91 10:00 NORTH ____
STORET/SARCAD NO: _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGP	NAME
402	None	Hex	Cr

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Composite sample (multi-aliquots - 12) collected from area #1 (see field sheet BGCGK 098 for dimensions)

SAMPLE COLLECTED BY : Jackson / RES

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: BGCGK SAMNO: 101 QCC: _ MEDIA PI CURRY, T.

ACTIVITY DES KUHLMAN DIECASTING REF LATITUDE
LOCATION STANLEY KS PROJECT NUM A37 PI LONGITUDE

SAMPLE DES: Concrete composite - floor DATE TIME FROM REF PI
LOCATION: STANLEY KS BEG 4/7/92 10:00 EAST
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 4/7/92 10:00 NORTH
STORET/SARCAD NO: _____ DOWN

ANALYSIS REQUESTED
CONTAINER PRESERVATIVE MGP NAME

8 OZ None Hex Cr

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER ___ OPERABLE UNIT ___

Composite sample (12 aliquots) collected from area #2 (see field sheet BCGGK099).

SAMPLE COLLECTED BY : Jackson

DRAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY 91 ACTNO: BGCGK SAMNO: 102 QCC: _ MEDIA: PI CURRY, T.

ACTIVITY DES: KUHLMAN DIECASTING REF LATITUDE _ __ __
LOCATION STANLEY KS PROJECT NUM A37 FT LONGITUDE ___ __ .

SAMPLE DES: Concrete floor - grab DATE TIME FROM REF FT
LOCATION: STANLEY KS BEG 4 /7 /92 10:30 EAST ____
CASE/BATCH/SMO: _____/_/_____ LAB: ___ END 4 /7 /92 10 30 NORTH ____
STORET/SAROAD NO: _____ DOWN ____

ANALYSIS REQUESTED

CONTAINER	PRESERVATIVE	MGF	NAME
8oz	None	Hex	Cr.

COMMENTS: FOR SUPERFUND ONLY: SUBSITE IDENTIFIER __ OPERABLE UNIT ___

single grab of a hot spot (visual) where spill had occurred.

SAMPLE COLLECTED BY : Jackson / Rees